

OVERSIGHT HEARING ON REAUTHORIZATION OF THE COASTAL ZONE MANAGEMENT ACT

OVERSIGHT HEARING BEFORE THE SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS OF THE COMMITTEE ON RESOURCES HOUSE OF REPRESENTATIVES

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OVERSIGHT HEARING ON REAUTHORIZATION OF THE COASTAL ZONE MANAGEMENT ACT

FEBRUARY 25, 1999

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON FISHERIES CONSERVATION,
WILDLIFE AND OCEANS,
COMMITTEE ON RESOURCES,
Washington, DC.

The Subcommittee met, pursuant to other business, at 10:38 a.m., in Room 1334, Longworth House Office Building, Jim Saxton (chairman of the Subcommittee) presiding.

STATEMENT OF HON. JIM SAXTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. SAXTON. We will now proceed to our second order of business. This section of the Subcommittee meeting is a hearing. The Subcommittee on Fisheries Conservation, Wildlife and Oceans will come to order for this section.

Today, we are discussing the Coastal Zone Management Act, known as CZMA, enacted by Congress in 1972. CZMA provides grants to states that voluntarily develop and implement federally-approved Coastal Zone Management Plans.

It also allows states with approved plans the right to review Federal actions to ensure they are consistent with those plans. It authorized the National Estuarine Research Reserve System as well, which all of my friends from New Jersey know it is extremely important to us.

I am a sailor and protection of the fragile coastal ecosystem has been a priority of mine since I came to Congress in 1984. The Barnegat Bay Watershed includes portions of the Edwin B. Forsyth National Wildlife Refuge, which provides nesting habitat for migratory birds along the Atlantic flyway.

Threats to these creatures necessarily should be addressed within the context of CZMA. One such threat is the use or misuse of personal watercraft, also known as jet skis or PWCs, particularly when they are used in shallow water.

This environmental impact of PWCs is often cited as the following:

(1) Wildlife Disturbance: PWCs shallow draft and high maneuverability are not present in larger boats, and allow PWCs to enter sensitive areas not assessable by larger motorized boats.

Once there, they disturb nesting birds and wildlife. Some studies indicate that when startled by PWCs, nesting birds have trampled

their eggs. Seals have abandoned their pups and other marine mammals have avoided certain areas.

(2) *Destruction of Aquatic Vegetation*: Again, because PWCs are able to enter shallow water, they have the ability to uproot aquatic plants and disturb kelp beds.

(3) *Increased Erosion*: PWC users typically spend longer periods of time in an area than traditional boats and can generate significant wave action. Increased and continuous wave action contributes to the shoreline erosion.

The Subcommittee is preparing legislation to encourage states to address the impacts of personal watercraft on the marine environment through the State Coastal Zone Management Plans.

At this point, I would ask Mr. Faleomavaega if he has any comments he would like to make.

[The prepared statement of Mr. Saxton follows:]

STATEMENT OF HON. JIM SAXTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Enacted by Congress in 1972, CZMA provides grants to states that voluntarily develop and implement federally-approved coastal zone management plans. It also allows states with approved plans the right to review Federal actions to ensure they are consistent with those plans, and it authorizes the National Estuarine Research Reserve System.

I am a sailor, and protection of the fragile coastal ecosystem has been a priority of mine. The Barnegat Bay watershed includes portions of the Edwin B. Forsythe National Wildlife Refuge, which provides nesting habitat for migratory birds along the Atlantic Flyway. Threats to these creatures necessarily should be addressed within the context of CZMA. One such threat is the use of personal watercraft, also known as jet-skis or PWCs, in shallow water.

The environmental impacts of PWCs are often cited as the following:

(1) *Wildlife Disturbance*: PWCs shallow draft and high maneuverability are not present in larger boats, and allow PWCs to enter sensitive areas not accessible to larger motorized boats. Once there, they disturb nesting birds and wildlife. Some studies indicate that when startled by PWCs, nesting birds have trampled their eggs, seals have abandoned their pups, and other marine mammals have avoided certain areas.

(2) *Destruction of Aquatic Vegetation*: Again, because PWCs are able to enter shallow water, they have the ability to uproot aquatic plants and disturb kelp beds.

(3) *Increased Erosion*: PWC users typically spend longer periods of time in an area than traditional boats and can generate significant wave action. Increased and continuous wave action contributes to shoreline erosion.

The Subcommittee is preparing legislation to encourage states to address the impacts of personal watercraft on the marine environment through state coastal zone management plans.

STATEMENT OF HON. ENI FALEOMAVAEGA, A DELEGATE IN CONGRESS FROM THE STATE OF HAWAII

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman.

I do want to commend you and thank you for calling this hearing concerning this very important issue. Mr. Chairman, the Coastal Zone Management Act, which was enacted in 1972, this legislation has resulted in the State-Federal partnerships that promote smart development and conservation for our Nation's coastal areas.

Proactive planning and on the ground projects remain critical as stresses on the coast continue to increase. Our coastlines are the most developed areas in the Nation. These areas cover only 17 percent of the land, but contain more than 53 percent of our Nation's population.

Fourteen of our 20 largest cities are along the coast. Since they also support a significant portion of our Nation's economy, including recreational fishing, shipping, oil and gas industries, we cannot afford to ignore threats to the health of our coasts.

Only by addressing problems such as pollution, decline in water quality, erosion, sea level rise, and loss of habitat for marine life can we derive maximum benefits from these areas.

Popularity of the Coastal Zone Management Act is evidenced by the fact that 33 of 34 eligible States have developed Coastal Zone Management Plans. The strengths of the Act include flexibility that allow states to address their unique needs and concerns, combine focus and plan development, and conservation, and public access, and consistency provisions giving states a voice and reviewing Federal activities that conflict with state plans.

One criticism of the Act has been that monitoring and enforcement are too weak. Provisions in the bill that will be introduced by you, Mr. Chairman, requiring that the Secretary of Commerce recommend measurable outcome indicators or other mechanisms by which the states could evaluate the effectiveness of their programs may address this concern.

I look forward to hearing from our witnesses this morning and commenting on the fact that you are a sea captain, Mr. Chairman. I would like to invite you to join me on a journey or a voyage on a double-haul Polynesian voyaging canoe to sail from Tahiti to Hawaii. That will really give you some coastal zone management appreciation.

Mr. SAXTON. I think I look forward to that.

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman.

[The prepared statement of Mr. Faleomavaega follows:]

STATEMENT OF HON. ENI FALEOMAVAEGA, A DELEGATE IN CONGRESS FROM THE
TERRITORY OF AMERICAN SAMOA

Mr. Chairman, I would like to thank you for holding a hearing on the Coastal Zone Management Act. Enacted in 1972, this legislation has resulted in state-Federal partnerships that promote smart development and conservation in our nation's coastal areas.

Pro-active planning and on-the-ground projects remain critical as stresses on the coast continue to increase. Our coastlines are the most developed areas in the nation. These areas cover only 17 percent of the land but contain more than 53 percent of the population. Fourteen of our 20 largest cities are along the coast. Since they also support a significant portion of our nation's economy—including recreational, fishing, shipping, and oil and gas industries—we cannot afford to ignore threats to the health of our coasts. Only by addressing problems such as pollution, declining water quality, erosion, sea level rise, and loss of habitat for marine life, can we derive maximum benefits from these areas.

The popularity of the Coastal Zone Management Act is evidenced by the fact that 33 of 34 eligible states have developed Coastal Zone Management Plans. The strengths of the Act include:

- flexibility that allows states to address their unique needs and concerns;
- combined focus on planned development, conservation, and public access; and
- consistency provisions giving states a voice in reviewing Federal activities that conflict with state plans.

One criticism of the Act has been that monitoring and enforcement are weak. Provisions in the bill that will be introduced by Mr. Saxton, requiring that the Secretary of Commerce recommend measurable outcome indicators or other mechanisms by which the states could evaluate the effectiveness of their programs, may address this concern.

I look forward to hearing from the witnesses about this and other ways to improve this important legislation.

Mr. SAXTON. I would now like to introduce our first witness, our colleague from—actually, I did not realize until I saw you sitting there, but the gentleman lives on Sanibel Island in Florida and in the summer on Fisher's Island off the coast of Rhode Island. Is that correct?

Mr. GOSS. Correct.

Mr. SAXTON. In any event, welcome and we look forward to hearing your testimony. You may proceed.

Mr. FALEOMAVAEGA. Will the Chairman yield?

Mr. SAXTON. Yes.

Mr. FALEOMAVAEGA. I would like to offer my personal welcome to the gentleman from Florida, who I certainly have had the privilege of knowing personally for the past 10 years.

I commend him for the tremendous contributions that he has made not only to this Institution, but to our Country. I welcome him.

Mr. GOSS. Thank you very much.

Mr. SAXTON. I ask unanimous consent that all Subcommittee members be permitted to include their opening statement in the record at this point. Mr. Goss.

STATEMENT OF HON. PORTER J. GOSS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. GOSS. Thank you, Mr. Chairman. Mr. Ranking Member, I appreciate those very kind words of welcome. I have many happy memories of working in this room with you all back when this Subcommittee had a different name.

It is interesting to me and pleasant to be back; especially talking about coastal zone management. I do have a statement officially prepared for the record, which I would ask be accepted in the record.

I would like to just emphasize a couple of major points, if I could. Thank you very much. I also started for the office this morning at an early hour, but I got here by 8 a.m., which is a good thing, because I only live 4 minutes away.

I would suggest that there are advantages to living on the Hill, Mr. Gilchrest, but nothing that would qualify with living where you do in Maryland on the coast. I miss the coast very much. I care very much about it and we in Florida do.

We think that the coastal zone management legislation has been extremely helpful. I think the proof is clearly in the pudding; 34 out of 35 eligible States participate. I understand something like 99 percent of our Gulf Lakes and ocean shore lines have a degree of protection from this law.

We have many good managers of our coastal activities all over the Country. One of them from Florida who I am very proud of, and I understand is here today, Gary Lytton, from Rookery Bay in my District, who has been recognized for the works he has done. We have many such people. We are proud of all of them.

The real purpose for me testifying today is to talk about a consistency proposal which I hope you would consider, the Subcommittee would consider, is legislation which would strengthen the CZMA.

It is simply this. In order for the states to do a better job of coming up with their conclusions on proposals, particularly outer continental shelf oil and gas proposals, it would be useful if they had the advantage of the results of the environmental impact studies that are required for those types of activities.

As it works now, if a state has a consistency review to deal with an OCS proposal, the process starts simultaneously. The Federal Government has 2 years to do its work and the state only 6 months.

Obviously, in all likelihood the state is therefore not going to have a final EIS to work from. What we are proposing is that the starting for the state's 6 month clock to begin tolling is at that time when the Federal EIS is completed.

That would give the state managers, the state authorities, and elected officials the opportunity to review the matter and have the advantage of the results of the EIS. I think this would strengthen this part of the Act.

It would make a great deal of difference in the State of Florida. We have cases actually active now that show us this would be a very good improvement. So, I ask the Subcommittee to consider this favorably and of course we will stand by to present all of the details on that.

On the subject of the personal watercraft, I join the Chairman in his crusade. We have had, regrettably, a number of deaths in Florida, which of course has a very high recreational boating use and a lot of boating activity in the littoral zones.

This is a subject that has been attempted to be regulated in different ways by different communities in different states with varying degrees of success. I do think it has certainly risen to the level of coming to the attention under the Federal Coastal Zone Management Act.

I wish you well in your efforts to find a better way to deal with this problem. Truthfully, it is not just an environmental concern, although I agree with everything the Chairman said and associate myself very much with his remarks on that because we have seen the kinds of damage he speaks of in what I will call estuarine areas in Florida.

Also, there is a public safety piece of this, which I am aware of, having been a mayor of a community where we have run into these problems. I also want to very much emphasize, again, the wholehearted support of the people of Florida for what the Coastal Zone Management Act has done and has provided.

Truthfully, our wealth in Florida is our beaches. It drives the economy. Shore line protection is a very important point for us. So, to have this kind of hearing going on, the reauthorization of this bill, the strengthening and improving of it, is very good news for the people of Florida.

I want to thank the Chairman and the Ranking Member very much for undertaking this.

[The prepared statement of Mr. Goss follows:]

STATEMENT OF HON. PORTER GOSS, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF FLORIDA

Mr. Chairman, I am delighted to be here this morning to discuss the Coastal Zone Management Act. As my colleagues know, I have been a longtime vocal supporter

of the Coastal Zone Management Act—it is a rare example of a Federal environmental program that is both voluntary and effective.

CZMA is a cooperative effort that recognizes states as full partners—sharing the costs and responsibilities for setting standards geared toward protecting local coastal environments. It provides the flexibility for Michigan to do what's best for the Great Lakes, for instance, while allowing Florida to establish a program that works for the Gulf and Atlantic Coasts. The success of CZMA can be measured by the fact that since its creation in 1972, 34 of 35 states eligible for the program have become involved. Together, these programs protect more than 99 percent of the nation's 95,000 miles of oceanic and Great Lakes coastline.

Florida has been an active participant and beneficiary of this program. Indeed, I am pleased that one of our coastal managers is here this morning to share his thoughts with the Committee. Gary Lytton manages the Rookery Bay Research Reserve in Naples, Florida. The reserve has proven itself a tremendous asset and its work has value far beyond Southwest Florida.

Mr. Chairman, this morning I would like to discuss the consistency provisions of CZMA, which are of critical importance to my home state of Florida, particularly with regard to the issue of oil and gas exploration. CZMA provides states the opportunity to review Federal actions and permits for activities off state coasts, and in the case of OCS drilling permits, gives the *state* the authority to make the determination whether or not these activities are consistent with the state's Coastal Zone Management Plan. Florida has spent a great deal of time and effort developing a plan that protects both our unique environment and the state's largest industry—tourism. CZMA has proven itself to be one of the state's most effective tools in dealing with this issue.

Having said that, I believe we can make some improvements in the consistency provisions. Currently, a state's consistency review of development and production plans under CZMA must be completed within a set timeline and states are not permitted to delay beyond those deadlines. That timeline runs out in six months, well before the Environmental Impact Statements required for oil and gas development under the OCS Lands Act are completed, a process that tends to take approximately two years. In other words, the state is forced to determine whether development of a proposed site is consistent with the State's Coastal Zone Management Plan *before* having an opportunity to review the environmental impact statements that are developed to analyze primary, secondary and cumulative effects of the proposed site. It seems to me that the detailed information contained in the environmental impact statements is precisely the kind of information a state must have in order to make an accurate and responsible determination of consistency.

The State of Florida is currently experiencing this problem firsthand, given the proposed development of a natural gas site off the coast of Pensacola, Florida. As a result of the state's experiences, first Governor Lawton Chiles and now Governor Jeb Bush have supported revisions to CZMA that would allow the states to review the EIS information prior to making a consistency determination.

After extensive consultations, I have introduced legislation that will make this common-sense change. H.R. 720 is a very straightforward piece of legislation—indeed, it is barely a page and a half long. In simple terms, the bill will prevent the timeline on a consistency determination from beginning until after the state has received the EIS information regarding the proposed site. Once the state has received this information, it will be under the time constraints already outlined in CZMA.

I believe this legislation will ensure that states making consistency determinations for proposed oil and gas activity will have all necessary information to make an informed decision about whether the proposed activity is consistent with the state's Coastal Zone Management plan. This change is consistent with the intent of CZMA and I am hopeful the Committee will look favorably on it.

Once again, Mr. Chairman, I am grateful for the opportunity to discuss the Coastal Zone Management Act, a wonderfully successful piece of legislation, and offer my thoughts on ways to strengthen it. Thank you.

Mr. SAXTON. Mr. Goss, thank you very much for your very fine articulate testimony. We appreciate your being with us this morning. Mr. Faleomavaega, do you have any questions for Mr. Goss?

Mr. FALEOMAVEGA. I want to thank the gentleman from Florida, too, for his comments. More specifically, if we do have some problems with the current law, as you stated earlier, that the states are not given sufficient time to review EIS's which have been put forth.

I think that is something that definitely we need to examine a little closer. I thank the gentleman for his observation.

Thank you, Mr. Chairman.

Mr. SAXTON. Mr. Gilchrest.

STATEMENT OF HON. WAYNE T. GILCHREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. GILCHREST. Good morning, Porter. Maybe you and I can exchange visits sometime. I can commute in with you and you can commute in with me.

Mr. GOSS. I would love to live where you live, Mr. Gilchrest, but I do not want your commute.

Mr. GILCHREST. We are still waiting for you to come out there and ride that old horse.

Mr. GOSS. I will.

Mr. GILCHREST. Thank you.

Mr. SAXTON. He actually lives on Turner's Creek, which is off the Sassafras River in a very lovely anchorage, I might add.

Mr. GILCHREST. I have heard.

Mr. GOSS. Jim is coming over with his sailboat sometime late spring. All of our colleagues who are now here this morning could jump on the sailboat in Havre D'Grace and come down to Turner's Creek and spend a day down there.

Mr. GILCHREST. It sounds like a good place to examine this whole issue. We try to protect those areas. You know, very quickly though, Porter, we appreciate your testimony.

This may be already happening, but an exchange of information between different states that are now beginning the process of implementing their management regimes or have already implemented their coastal zone management regimes, maybe it would be good for us to get together and exchange information with states that are in the process or who have completed that to see what the successes are and what the difficulties are in doing that.

Mr. GOSS. I would certainly endorse that. I can tell you that the State of Florida borrowed a great deal of its Coastal Zone Management Planning Process in the 1970s and the 1980s from the State of Oregon.

We had a very fine manager. He happened to be able to be hired away from Oregon after he had done their plan. He came to Florida. We listened very closely to what he said and did a lot of the work in Florida, which has subsequently paid off very well.

A part of the beauty of this Act is it provides for that kind of exchange, if somebody will take the initiative. It also provides the flexibility to deal with the differences between the Great Lakes, New Jersey, Florida, Maryland, and wherever else. I think that is an excellent suggestion.

Mr. GILCHREST. Thank you, Porter. Thank you, Mr. Chairman.

Mr. SAXTON. Thank you. Mr. Vento.

STATEMENT OF HON. BRUCE F. VENTO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. VENTO. Thank you, Mr. Chairman.

Last night, I read the staff material on this. I am sorry, Porter, that I was not able to be here to hear your statement.

I understand that what you are proposing is that, in the statute you formally require the EIS to be transmitted to the state prior to the consideration of its plan through the process of developing it.

Mr. GOSS. That is correct.

Mr. VENTO. The issue here is that they are not getting, in other words, NOAA is required to share all of the information. They are not sharing the EIS. They are developing that simultaneously. Is that the concern?

Mr. GOSS. The problem is that they have 2 years to do the EIS and the states only have 6 months to do the consistency review. So, obviously unless the Federal Government happens to get the whole EIS done in 6 months, the states do not have the advantage of it.

Mr. VENTO. The problem, of course, is this would obviously cause a delay in terms of the plan coming forth from the state.

Mr. GOSS. It could or it could not. It would depend on how much of the time the Federal Government took. If the Federal Government routinely takes the 2 years, then yes, it could add as much as 6 months onto the end of it. My feeling is once the state has the material, the EIS, the state is not going to need the full 6 months. So, I am not sure that that is true.

Mr. VENTO. You raise an important point about coordination. I do not know enough about it. I think that if it were to mean that the plan would be substantially late. I know there has been a flash point about some of these plans because they obviously mandate a sort of conduct in terms of the development, utilization, and protection of these resources.

I think it makes sense to try and coordinate this so that the information does not have to be developed independently. In many instances, as you know of course, we delegate the states to do the EIS or do much of this planning.

So, there may be that there is some agreement, a memorandum of understanding, that could be developed. I do not know enough, as I said, about this law. This is kind of a new topic to me.

I would be interested in learning more about that. There is no real reason that they should not have as much information as available. The EIS certainly is the process for developing that.

Mr. GOSS. The purpose, Mr. Vento, is obviously to get a good result and not to cause delay. I would point out that the Minerals Management Service has now issued proposed regulations, or at least draft regulations, that would basically allow a state to review the draft EIS before making its consistency determination which is what I am asking.

So, the question is then this need has already been recognized and I am told that this happened in just this last week and it may have something to do with the fact that this proposal is here.

We believe the proposal is sound. I do not think it will cause undue delay. I think it will get better results. Certainly from the Florida perspective it will. The Minerals Management Service has drafted some regulations to give this thing a try.

I still think we ought to put it into law to make sure that the states have the opportunity to have the EIS and have their time start tolling once the EIS is completed. As I say, I do not think it is going to add a significant percentage of time to the process.

Mr. VENTO. Thank you. Thank you, Mr. Chairman.

Mr. SAXTON. Porter, thank you for being with us this morning.

Mr. GOSS. Thank you, sir.

Mr. SAXTON. We will excuse you at this point.

We will now move to hear from the Assistant Secretary of Commerce for Oceans and Atmosphere at the Department of Commerce, Mr. Terry Garcia. We are glad you were able to be here this morning.

STATEMENT OF TERRY D. GARCIA, ASSISTANT SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE, DEPARTMENT OF COMMERCE

Mr. GARCIA. Thank you, Mr. Chairman.

It is always a pleasure. Let me start by apologizing to the Subcommittee for the fact that my written statement was late. One of the frustrations that I continue to have is with the clearance process.

I will commit to you and to the other members that we will do our best to make sure that this does not happen in the future. Re-invention has its limits I am afraid. We will continue to work to make the system more efficient.

I would ask that the written statement be placed in the record. I have a few oral comments that I would like to make to focus on several issues of primary importance that we would like to draw to the attention of the Subcommittee.

First of all, I want to again thank you for the opportunity to appear before you to present testimony regarding the Coastal Zone Management Act and to express the Administration's steadfast and continuing support for programs authorized under the Act; the National Coastal Zone Management Program and the National Estuarine Research Reserve System.

The CZMA is one of the Nation's landmark natural resource management laws and stands today as our most successful voluntary tool, allowing comprehensive and cooperative management of our Country's coastline.

I commend you, Mr. Chairman, and this Subcommittee for holding this hearing. I urge the Subcommittee to move expeditiously in approving legislation to reauthorize the CZMA.

The importance of our Nation's coastal regions to the economy of the United States and its value to the environmental health of the Country should be a reminder to all of us as to the importance of CZMA.

The 425 coastal counties generate \$1.3 trillion of the GNP and coastal industries account for over 1/3 of the national employment or 28.3 million jobs. In 1995, just under a billion tons of cargo worth \$620 billion moved through coastal ports and harbors.

Moreover, coastal estuaries are among the most biologically productive regions in the Nation, as well as providing recreational opportunities for more than 180 million Americans each year.

Quite frankly, however, Mr. Chairman, our Country's coastal resources continue to be under siege. The need for the CZMA and its programs is greater now than ever.

The Administration's support for the CZMA was recently reinforced when the President announced his Lands Legacy Initiative.

Under this initiative, which is a part of the President's fiscal year 2000 budget request, NOAA would receive an additional \$105 million over current funding levels.

A significant portion of these funds is targeted for coastal zone management and the National Estuarine Research Reserve Programs to protect America's valuable ocean and coastal resources, and to strengthen our partnerships with state and local communities.

These funds will address the following three critical coastal concerns. It is these concerns that I would like to focus on today.

First, smart growth. Coastal communities, the most densely populated and fastest growing areas of the Nation are experiencing increased pressure as 3,600 people each day move to the coast.

Forty percent of new commercial development and 46 percent of new residential development is occurring in coastal communities. This population growth and resulting new development encroaches upon and diminishes natural and agricultural areas at the urban fringe and fuels sprawl.

Sprawl has impacted coastal communities by degrading water quality and marine resources, fragmenting coastal habitat, and reducing the quality of life for coastal residents. Many coastal communities do not have the capacity to confront successfully this coastal growth and its impacts on marine and coastal resources. Twenty-eight million dollars of the new funding that is proposed through the Lands Legacy Initiative for the Coastal Zone Management Program is to develop smart growth strategies and land use planning innovations, revitalize waterfronts, and improve public access to the coast.

With this proposed funding, coastal communities will be offered a comprehensive package of financial and technical assistance for planning through implementation. In addition, to ensure protection of our pristine estuary resources from the ever-growing pressures of urban sprawl, the Lands Legacy Initiative includes an increase of \$14.7 million for the NERRS to purchase buffers, boundaries, and easements from willing sellers.

The second issue is protection of coastal habitat. Coastal habitats including mangroves, wetlands, estuaries, sea grass beds, and coral reefs provide critical spawning and nursery areas for living marine resources.

Wetlands serve as filters for land-based contaminants, and together with coral reefs, buffer against storm surges and help prevent coastal erosion.

In the Southeast, over 90 percent of the commercial catch and 50 percent of the recreational catch are fish and shell fish dependent upon wetlands. Human activities have changed, degraded or destroyed coastal habitats threatening many species of economic and recreational importance. Of significant importance is the protection of coral reefs where approximately 50 percent of all federally managed marine fisheries spend a part of their life cycle.

However, coral reefs are being seriously degraded by pollution and sedimentation, development and over-use, and increased ocean temperatures and salinity. It is estimated that 10 percent of the earth's coral reefs have already been seriously degraded and a much greater percentage are threatened.

Without aggressive conservation and protection measures, this decline is likely to escalate and may not be reversed. I would also note that next week, the Coral Reef Task Force is meeting in Hawaii to take up this very critical issue.

Under the Lands Legacy Initiative, more emphasis and action is given to estuaries and habitat protection, including funding for research monitoring, assessment, and effective resource community-based management measures to restore, protect, and conserve coastal habitat.

Seed money would be provided to catalyze cooperative restoration projects and to leverage additional funding to produce significant on the ground restoration.

The final point is controlling polluted run-off. Development pressures on the coasts can lead to problems associated with excess polluted run-off. These problems include cumulative sources, such as run-off from urban streets and parking areas, agriculture, forest harvesting activities, marinas, and recreational boating, and impacts from the construction and maintenance of dams, channels, and other alterations of natural systems.

Polluted run-off is a prime suspect in contributing to shell fish harvesting restrictions and conditions. This Subcommittee is well aware of harmful algal blooms and *Pfiesteria*.

Polluted coastal waters can result in closure of beaches to swimming. In 1995, for example, U.S. ocean, bay, and Great Lakes beaches were closed or advisories were issued against swimming on more than 3,500 occasions.

Under the President's Clean Water Action Plan, \$12 million in funding, an increase of \$4 million over fiscal year 2000, is requested under the Coastal Zone Management Act to fully develop and implement on the ground, state-polluted run-off control measures, and leverage other state and local resources working to control the flow of polluted run off into coastal waters and its impact on coastal habitats and human health.

Mr. Chairman, there is no better testament to the success of the Federal, State, and local partnership forged by the CZMA, than the fact that 32 of 35 eligible coastal States, Commonwealths, and Territories have received Federal approval of their Coastal Zone Management Plans and that two more states, Minnesota and Indiana, are seeking to join the national program in the months ahead.

Strong partnership developed with the States through the CZMA is also seen in the growth and importance of the National Estuarine Research Reserve System. There are now 23 federally-designated reserves. Most recently, New Jersey and Alaska have joined the system with new reserves.

In conclusion, Mr. Chairman, as it was written within the CZMA more than 25 years ago, it is and should continue to be the national policy to preserve, protect, develop, and, where possible, to restore or enhance the resources of the Nation's coastal zones for this and succeeding generations.

I urge your active support for the reauthorization of CZMA. On behalf of the Administration, thank you again for this opportunity. I look forward to your questions and comments and to working with the Subcommittee as we move forward to develop a reauthorization.

Thank you.

[The prepared statement of Mr. Garcia may be found at the end of the hearing.]

Mr. SAXTON. Mr. Secretary, thank you very much for a very good testimony. Let me just ask, with regard to CZMA, do you see any weaknesses that we ought to be addressing that we have not addressed in our reauthorization?

Mr. GARCIA. Let me first, again, say that we strongly believe that CZMA has been a very successful program. We have, however, over the years learned a number of things.

There are several areas where we could improve CZMA with regard to habitat protection, controlling polluted run-off, ensuring that the National Estuarine Research Reserve System, is more strongly linked to the management programs of the states.

The Administration is preparing legislation for reauthorizing CZMA. We would like to work with the Subcommittee and its members in developing that proposal so that we can, together, strengthen this vitally important Act.

Mr. SAXTON. Thank you very much.

Would you care to comment on the personal watercraft issue?

Mr. GARCIA. I will comment on it, Mr. Chairman.

It is obviously a difficult issue. It has generated a lot of interest and controversy around the country. This is an issue that ultimately is going to have to be dealt with by the states.

We would be happy to work with you and work through this issue. I do not have any other points that I would make at this time. But I will concede to you that it is an issue of great importance.

Mr. SAXTON. Thank you very much. Mr. Faleomavaega.

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman.

I do want to thank Secretary Garcia for a very comprehensive statement. This President's Land Legacy Initiative, Mr. Secretary, there is a very broad brush that he has painted on this thing.

Have I gathered that only \$105 million goes to NOAA out of this billion dollar proposed package? Are there some other grant programs that are added to it or am I misreading your statement here?

Mr. GARCIA. You are correct that out of the billion dollars that are proposed for the Lands Legacy that \$105 million would go to NOAA. There are, of course, other programs. These monies would augment and complement existing NOAA and Administration efforts to deal with some of the critical coastal issues.

We think it is a substantial investment in these resources. As I had said in my testimony, the importance of these resources to the economy and to human health can simply not be over-stated. The Lands Legacy is designed to deploy resources in communities for on the ground projects. I would just urge the Subcommittee and the members to very seriously review our request.

I would urge your support for it. It is designed to do what we all know needs to be done, and that is to get resources to states and communities to work with us so that we can develop the partnerships that are going to be needed to address such problems as coral reef degradation, habitat degradation, polluted run-off, the

problems of *Pfiesteria* that this Subcommittee dealt with several times last year, and harmful algal blooms.

So, I would commend it to you. We would be happy to come back to the Subcommittee to present a detailed analysis for you of the request and of the specific programs that would be funded by that particular request.

Mr. FALEOMAVAEGA. Is the Administration planning to offer any proposals in structural changes in the current Coastal Zone Management Act or are you just going to wait until the Congress comes up with its own proposed changes?

Mr. GARCIA. No, sir. We are preparing a proposed reauthorization bill.

Mr. FALEOMAVAEGA. Do you also handle the weather observation stations that we have nationally.

Mr. GARCIA. We do.

Mr. FALEOMAVAEGA. Correct me if I am wrong. Is the Administration proposing any cutbacks on the capabilities in providing weather station resources?

Mr. GARCIA. No, Congressman. We have been engaged over the last several years in a process of modernizing the Weather Service which has involved the closure of some offices.

That is a consolidation of offices. It is a recognition that we have deployed new technologies that will allow us to better predict and forecast weather events.

Mr. FALEOMAVAEGA. Thank you.

Thank you, Mr. Chairman.

Mr. SAXTON. The gentleman from Maryland.

Mr. GILCHREST. Thank you, Mr. Chairman.

I am not sure what the status of the legislation is that this Subcommittee is developing on the recommendations to develop a structure to collect hard data on the success of the CZMA Program.

Is there a draft bill that we are going to hold hearings on, Mr. Chairman?

Mr. SAXTON. The bill is currently being drafted. We will be holding hearings, yes.

Mr. GILCHREST. Do you have any specific recommendations today, Mr. Garcia, to give to us as to how we would want to develop a structure so that sufficient data, hard data, could be collected and then be evaluated on the program? You may have said it. I apologize for being on the phone.

Mr. GARCIA. I do address it in the written statement. We have taken several steps over the last year or so to improve the collection of data so that we can evaluate the effectiveness of the CZMA Program and the various programs within the states to ensure that the purpose of the Act is being fulfilled.

I think that we have made substantial progress. We have instituted within the agency an evaluation of the programs. We have prepared an effectiveness report. Our biennial report on the Coastal Zone Management Program I believe is due to be delivered within days, perhaps today, to the Subcommittee which contains information on the effectiveness of the program.

Mr. GILCHREST. Do you feel that legislation is needed in order to collect sufficient data?

Mr. GARCIA. No.

Mr. GILCHREST. Oh, you do not?

Mr. GARCIA. We feel the legislation is needed to make some improvements in the Act. I want to be careful not to say that we feel there are any glaring deficiencies in the Act.

Rather, there are some areas that could be enhanced and improved. When we have finished—the Administration's legislation is now in the clearance process. We are receiving comments from other agencies.

As soon as OMB has completed its process, we would like to sit down with the staff of the Subcommittee and the staff of the individual members to talk about these issues to see if we cannot jointly come up with recommendations on how to improve the Act. Effectiveness may be one of those. There may be some other things that we have not thought of.

Mr. GILCHREST. Are one of the things that you would recommend in improving the Act that you want to work with us on is collecting hard data about protecting more acreage and improving the quality of small estuaries, or bay grasses, and a whole range of things?

Mr. GARCIA. Yes.

Mr. GILCHREST. Apparently, there is not much more than anecdotal information.

Mr. GARCIA. I would not say that. I would agree with you that collecting data is something that we obviously as a science agency have a deep and abiding interest in.

Mr. GILCHREST. Who do you collect it from; just from the states? So, you collect that data from the state authorities?

Mr. GARCIA. Correct; from the NERRS system, from our own offices, and combine that information to evaluate the effectiveness of these programs.

Mr. GILCHREST. Is there any other area of the Act that you would recommend needs improvement through legislation?

Mr. GARCIA. There are several. Again, these are not glaring deficiencies, but rather fine tuning of the Act. Ensuring that the NERRS Program, for example, links to the management programs are strengthened.

The NERRS Program provides us with valuable information on some very pristine resources around the country. We need that information and we need to link it to these management programs that are now in place.

We also need to make sure that the authorities under the Act for controlling run-off pollution are retained and, if necessary, strengthened on habitat concerns.

Mr. GILCHREST. When some of this \$100 million filters down into this particular Act, there may be a way to do that now. Is there a way or could there or should there be a way in this Act similar to, let us say, the other part of the Lands Legacy Program that potential, as far as the purchase of easements or the purchase of land—is it now included in the Act?

Mr. GARCIA. Yes, it is. For the NERRS Program, there is \$14.7 million that we are proposing to add to the program for the purpose of allowing states to purchase easements, buffers from willing sellers.

Mr. GILCHREST. How much is in the program now?

Mr. GARCIA. It is \$4.3 million.

Mr. GILCHREST. Four million dollars. Is that just for Maryland?

Mr. GARCIA. Among others.

Mr. GILCHREST. Thank you very much.

Thank you, Mr. Chairman.

Mr. SAXTON. I thank the gentleman. Mr. Vento.

Mr. VENTO. Thank you, Mr. Chairman.

There are a couple of questions here. I have one that is sort of technical. I understand that Dr. Hershman is presenting a report today on the effectiveness. NOAA commissioned a conference on the effectiveness program.

Do you have any comments on the outcome data? I mean, there is a suggestion that is based primarily on assessments of policies, process, and tools rather than actual outcome data. I do not want you to go into a dissertation on this, but do you have any comment on that particular observation?

Mr. GARCIA. I do not know that, that is quite accurate. I will let the next witness speak to that. Our conclusion from the report is that this program is generally very effective in accomplishing the goals of the CZMA.

Again, while there are some changes that should be made in the program, overall it has done its job. It has established or helped to establish and strengthen the necessary partnerships that we need to make with states and communities to deal with these coastal resources. So, we are generally quite pleased with the direction of the program and the results that this program has produced.

Mr. VENTO. Mr. Secretary, there are a number of different requirements or laws obviously with regard to the Coastal Zone Management Act and one is voluntary participation.

In enhancing that plan, of course, we started out with, and you know pretty soon Minnesota is going to be involved with this.

Mr. GARCIA. Right.

Mr. VENTO. I am from Minnesota, as you know. That will affect our Great Lake Superior. In any case, by additional requirements to it, for instance, there is a suggestion that the plan ought to include non-point pollution type of issues.

I think one of the suggestions that is being made here is that it ought to include personal watercraft type of restrictions, or limits, or at least guidance that would come back.

Obviously, you have been asked about that. Some states no doubt are ready and have exercised some responsibility along both these lines. Do you have any comment about the non-point pollution requirement?

Mr. GARCIA. Well, yes. On non-point I would just say that it is already in the Act. There is authority for the Non-Point Pollution Program. We have developed with States, and Congress has funded, Non-Point Pollution Programs around the country.

My point was simply that we need to retain that authority. We need to focus this Act on dealing with the habitat issues associated with non-point pollution, the degradation of habitat.

We have seen the consequences over the years of non-point pollution or of run-off pollution into bays and estuaries, into our coastal waters. The effects have frankly been staggering to the economy.

Unfortunately, we are seeing the problem continue to grow. So, it is a problem that must be dealt with. We just happen to think that the best way to deal with this is through programs such as the CZMA Program which develops partnerships with these communities so that each community is allowed to develop a program that best suits its needs and its citizens' desires.

Simply put, it is in the Act now. We would like to see it stay in the Act. We think it is critical. We would propose that we simply look at the current focus of the Non-Point Program to ensure that it is meeting the needs of the coastal states.

Mr. VENTO. Your concern, I guess reading between the lines, is whether or not there has been adequate funding for that and whether or not the plans that are coming back actually sufficiently address the non-point pollution. Is that correct?

Mr. GARCIA. That is correct.

Mr. VENTO. It may, in some cases, not address it or need to be readdressed as we learn more about dirty diatoms. Is that correct?

Mr. GARCIA. Among others. We do have a request for \$22 million under the Clean Water Initiative to deal with, among others, non-point pollution and harmful algal blooms.

Mr. VENTO. On the issue of the personal watercraft, which apparently is going to be a special topic today, we have been through this in the State of Minnesota with all of our lakes.

The issue here, of course, is that we had a permitting process which assessed a \$50 fee. We have come to find out that our new Governor has four or five of these. So, as you might imagine, he is not—

Mr. SAXTON. They are probably big ones too.

Mr. VENTO. Well, they have got to be. He uses two at a time, Mr. Chairman.

Mr. SAXTON. One for each foot, I suppose.

Mr. VENTO. In any case, I think that one of the problems that this breaks down on, of course, we know that there is wave action. There is turbidity. I read some of the terms in here that are caused because they do not have much of a draft, obviously, and they can move around pretty quickly; besides being a pain in the neck to those of us that are fishermen. They have this \$50 fee, obviously, with the idea of using those dollars to try and provide some sort of enforcement mechanism.

I suspect that we could ask in the Coastal Zone Management Act for the states to address this particular issue. I do not know exactly how the Chairman anticipates dealing with this.

That might be a reasonable way. Do we actually deal with other type of watercraft? For instance, if we have anchoring of various types of craft near a reef, and in some cases we see damage occurring, would it not be reasonable then to look in terms of actual damages that occur and ask for states to mitigate or to avoid that by virtue of their regulatory process and as a part of their plan in terms of coastal zone management?

Is that addressed at all today? I mean, obviously, you addressed the issue with regard to those that would be anchored in terms of damaging coral reef and so forth.

Mr. GARCIA. I do not know whether other vessels are specifically addressed in CZMA. I think not. I am sure my staff will throw

something at me if I am wrong. Other statutes do address the issue that you are raising.

Obviously if some activity, whether it is caused by a personal watercraft or other vessel is damaging, for example, a coral reef, there are other statutes that would govern the ability of the Federal Government or of states to seek redress in that case.

Mr. VENTO. So, we are indemnified. You are actually involved in suits on occasion where there is coral reef damage that occurs as a result of some activity in these areas through the states that are involved.

Mr. GARCIA. Absolutely; both under our Marine Sanctuaries Act and under the Oil Pollution Act, and under various other statutes. There is authority to seek redress for injuries to natural resources, whether it is coral reefs, or critical habitat for fisheries, or simply coastal areas that have been impacted by some human activity.

Mr. VENTO. I think the problem here, Mr. Chairman, is it is a little tougher to measure some of this.

Thank you.

Mr. GARCIA. If I could make one other point.

Congressman, you had been engaged in a discussion with Congressman Goss on this; just the issue of the EISs and the clock, when it starts running.

I believe, and will provide more information to the Subcommittee, that this can be dealt with administratively in the state plans. A statutory amendment or change would not be necessary to address the concern that the Congressman had raised. We would be happy to work with the Subcommittee to work through that particular issue.

[The information referred to follows:]

Outer Continental Shelf (OCS) Oil and Gas Activities and National Environmental Policy Act (NEPA) Documents; Starting the Coastal Zone Management Act (CZMA) Federal Consistency Review Period (Representative Porter Goss (R. FL) proposal).

NOAA does not recommend amending the CZMA to require that environmental impact statements (EISs) prepared by the Minerals Management Service (MMS) for an applicant's proposal to drill for oil and gas on the outer continental shelf must be completed prior to the start of the CZMA Federal consistency review period. A statutory change is not required to address this issue. States may individually, pursuant to NOAA regulations, amend their federally approved coastal management programs to require that a draft EIS (or final EIS) is data and information that is necessary to start the state's Federal consistency review. This would be a routine program change, under 15 C.F.R. part 923, subpart H, that could be developed and approved within 4-6 weeks. In fact, a recent rule proposed by MMS acknowledges a state's ability to so change its coastal management program.

Moreover, the coordination of NEPA documents and CZMA Federal consistency reviews may vary greatly depending on the state and the Federal agency(ies) involved. Coastal states have informed NOAA that they want flexibility as to how they coordinate NEPA and Federal consistency reviews. Thus, some states may want to begin a consistency review prior to the completion of a draft or final EIS, or make some other arrangement to obtain information. Thus, since states want such flexibility and it is fairly easy for a state to amend its program to include NEPA documents as necessary information requirements needed for its consistency review, a statutory change is not desired or needed.

Mr. VENTO. I thought that, Mr. Chairman, as I read further under Porter's comments that the issue is I think that they feel like they have to come up this very quickly.

In fact, the staff analysis said it is 90 days. I do not know if it is 90 working days. Porter was saying it was 6 months. So, I do not know how you guys reconcile those two numbers.

In any case, I think the concern is that they quickly have to come up with this in a short period of time. Then the Minerals Management Administration—I guess I misspoke when I said it was NOAA.

They can string this out for 2 years. So, a lot of issues may come up that they did not even have a chance to look at, in terms of the consistency.

Mr. GARCIA. To be frank, I think the issue is that some states like the system as it is. Others feel that they need to modify the timing.

My point is only that I believe that we can take care of this administratively through modifications of those state plans where the state feels that it needs more time rather than making a statutory change.

Mr. SAXTON. Mr. Secretary, thank you very much for being with us this morning. We appreciate your input as always. We also appreciate your reference to the timing on the receipt of your material.

We appreciate your intent to try to get that to us earlier.

Mr. GARCIA. We will strive to do better.

Mr. SAXTON. Thank you.

Now, we will move on to our next panel. It consist of Ms. Jacqueline Savitz, who is the Executive Director of the Coast Alliance; Mr. Howard Park, who is a Consultant with the Personal Watercraft Industry Association; and Mr. Thomas Tote, who with the Jersey Coast Anglers Association, a marine conservation group from my State.

Welcome aboard. Ms. Savitz, you can proceed at your will.

STATEMENT OF JACQUELINE SAVITZ, EXECUTIVE DIRECTOR, COAST ALLIANCE

Ms. SAVITZ. Thank you very much, Mr. Chairman.

Good morning, members of the Subcommittee. My name is Jackie Savitz and I am the Executive Director of the Coast Alliance, a national environmental coalition that works to protect our Nation's priceless coastal resources.

As you know, Coast Alliance leads a network of over 400 conservation groups around the coasts, including the Great Lakes. We appreciate the opportunity to offer testimony today on the Reauthorization of the Coastal Zone Management Act, on behalf of the Coast Alliance and about a dozen other coastal conservation organizations.

The Alliance has a long track record with the Coastal Zone Management Act. We have consistently supported the reauthorizations. We have worked to educate the public about the value of the related Coastal Non-Point Source Pollution Control Program.

We have worked with NOAA and the EPA to maintain the consistency aspects of the Act and the enforceability aspects of the Coastal Non-Point Program. This week we released a report entitled "Pointless Pollution: Preventing Polluted Run-off and Protecting America's Coasts."

I have asked that it be distributed to this Subcommittee. This report was released by 40 organizations and 15 coastal states this week. It focuses on the number one threat to the coasts, polluted run-off, and on the need to continue to move forward with the Coastal Non-Point Program.

Since the Act was created in 1972, there has been little respite from human impacts in coastal areas. It is expected that by 2015, 25 million more people will move to the coasts. Where will our already crowded coasts put these 25 million people?

What impact will these new residents have? The answers, and our greatest hope for the coasts, lie in a carefully crafted and well-defined Coastal Zone Management Act. Coast Alliance believes that the Act has provided much needed attention to coastal issues, promoted inter-governmental coordination, and comprehensive solutions.

However, it has not sufficiently addressed coastal pollution. Through reauthorization, Congress should give the Coastal Non-Point Program a chance to be effectively implemented.

As Congress embarks on this important task, Coast Alliance and its affiliated organizations believe that the Act should reflect the following principles.

First, since polluted run-off is the number one cause of water quality impairment threatening coastal economies and aquatic resources, the Coastal Non-Point Program must be integrated into the Act, and sufficient funds must be authorized for its support. Second, the program's penalty provisions and its requirement for enforceable mechanisms should be maintained.

Third, any new projects or grant programs supported through appropriations under this Act, should be environmentally protective. While the impacts of some projects like beach re-nourishment, dredging, shore line stabilization may be a matter of debate—there are certainly many sources of funding available for those programs.

Therefore, the financial resources made available under the Coastal Zone Management Act should be focused on model projects that demonstrate agreed upon benefits to coastal resources, not those with definite or potential ecological impacts.

We feel strongly that Congress should only fund projects that serve as models of environmental protection through this Act to minimize rather than facilitate the impacts of growth.

As for run-off, besides contributing to the closure of nearly 3 million acres of the Nation's shellfish beds, polluted run-off is credited with degrading at least 1/3 of surveyed rivers and streams, and causing a dead zone covering more than 6,000 square miles in the Gulf of Mexico every year.

Polluted run-off also promoted the toxic *Pfiesteria* outbreaks on the mid-Atlantic coast. It made bathers sick on beaches in California and clogged important shipping channels in the Great Lakes and elsewhere. However, compared to factories and sewage treatment plants, this source of pollution is essentially unregulated.

The Coastal Non-Point Program can help us begin to solve these problems. It is a policy tool that Congress created. It can stop run-off from taking its toll on local waterways. Coast Alliance has been working closely with citizens, and State and Federal Government

agencies to ensure that the Federal investment in this program is well-spent.

We also have worked hard to help ensure adequate funding for the program. However, to date, the funding levels do not reflect the need or the degree to which run-off impairs the coasts.

Dr. Hershman's study, which was mentioned earlier, found that one failure of the CZMA Program, according to its senior managers, was that it had not adequately addressed water quality protection, watershed management or non-point pollution.

To ensure that its investment in the program pays off, Congress must incorporate the Coastal Non-Point Program into the Coastal Zone Management Act and provide funding to ensure its implementation.

In summary, it simply does not make sense with the increased recognition of run-off related impacts and the increased environmental awareness on the part of the public to pass a coastal management law that does not explicitly provide for environmentally sound projects, and does not reiterate our commitment to controlling polluted run-off.

Development and run-off pollution are the two greatest threats to the coasts. The Coastal Non-Point Program needs to be given a chance to work.

Thank you very much, Mr. Chairman, and members of this Subcommittee for giving us the opportunity to speak today.

[The prepared statement of Ms. Savitz may be found at the end of the hearing.]

Mr. SAXTON. Thank you.

Mr. Howard Park, a representative of PWC Industry. Welcome, sir. We are very anxious to hear what you have to say.

STATEMENT OF HOWARD PARK, CONSULTANT, PERSONAL WATERCRAFT INDUSTRY ASSOCIATION

Mr. PARK. Thank you.

First, I would like to ask that my written statement be entered into the record with just one correction. There is a reference on the first page on a New Jersey bill that we support to deal with some of the concerns in Barnegat Bay.

I had given the wrong number for that bill. The bills we do support are Assembly Bill 2520 and Senate Bill 1384, not Assembly Bill 653 as I had said in my statement.

We know that there are a lot of problems and challenges with personal watercraft use and a lot of conflicts with sailors like yourself and other people who use the waterways.

We very much do want to work with government at all levels to address these problems. We feel that generally the best place is the state and local level. We have spearheaded efforts to reduce sound emissions from personal watercraft.

This year, one member company has new technology that reduces sound by 70 percent. One company is claiming 50 percent for another technology. We are proud of the progress we have made in that area. We want to continue it.

We also believe, just sort of in summary, that the language in this bill, especially as it concerns the definition of sensitive areas, is too broad. We would like, again, to work with you on it.

First of all, it has always been our position that personal watercraft do not belong in shallow waters under 2 feet. All of our safety materials and owner's manuals say do not operate in areas under 2 feet in depth.

So, we have no problem with rules or regulations that incorporate that. You can do damage to a personal watercraft if you operate in shallow areas because it can take in aquatic vegetation, sand, or other things. That is not good for the engines. So, we do not support operating in shallow waters.

It is not correct, however, that only personal watercraft can access those waters. Jet boats, which are not defined as personal watercraft, can also access many shallow areas as can some other types of vessels.

Many of those types of vessels are becoming more popular. So, that is something that we would like you to consider. There has been considerable research into the effects of personal watercraft on vegetation and wildlife.

I know there was a study done up at Barnegat Bay. I would also like you to note some other studies that have been done.

I have some of this material that I would like to enter into the record that comes to opposite conclusions from the study that was done in Barnegat Bay.

[The material referred to may be found at the end of the hearing.]

Mr. PARK. I would like to read just two sentences from Dr. James Rogers, who is a biologist with the Florida Game Fresh Water Fish Commission, who has conducted extensive research into this issue.

According to him, "a PWC moving at idle speed obliquely to the birds should produce the same flushing response as an outboard motor boat. Similarly, a fast moving motor boat headed directly at the birds with a deep V-bow throwing white spray should produce a flushing response similar to that of a PWC being operated in a similar manner."

There has been work done in this area. I hope the Subcommittee and the staff takes a look at it. To address a little more specifically your concern about the language in the bill under discussion, it defines sensitive area as any area in the coastal zone that contains living marine resources and birds that may be impacted during the operation of a PWC.

We would like to see that narrowed. We would like to see it be something that could be measured; a definition that the boaters could know where they are going and what that does include. We think that the current definition, as I have said is a little broad.

I started off by talking about conflicts. We really feel that we are taking steps to address these conflicts with PWC use.

I mentioned the sound reduction. That has just been introduced this year. So, you will not be able to really notice it on the water for a while. As the newer craft become out there and older ones are phased out, we think it will make a big difference.

We also support mandatory education for personal watercraft operators. New Jersey was the second State to adopt mandatory education. There was a pretty significant accident decline in the year after that was adopted in New Jersey. Connecticut has also seen similar results.

We also support tough model legislation on controlling business that rent personal watercraft. We have an agreement with the EPA to reduce emissions from personal watercraft. We have loaned personal watercraft to well over 1,500 law enforcement agencies so they can enforce the laws on the water.

A lot of the marine law enforcement has been cut back. We also support a minimum age of 16 for personal watercraft operation. Only about eight states have adopted 16. Most are much lower.

Also, Mr. Vento mentioned before the concept of fees to support law enforcement or other impacts of personal watercraft. We have supported that concept. If it is earmarked for law enforcement, not just a tax, but if it is earmarked for activities that would help reduce impact, or law enforcement, or education, or other types of activities that would help deal with some of the challenges.

I do not know about Governor Ventura, but our association did not oppose those fees in Minnesota. I believe they were imposed on some other boats too.

I see the red light. Thank you very much.

[The prepared statement of Mr. Park may be found at the end of the hearing.]

Mr. SAXTON. Thank you very much, Mr. Park.

We greatly appreciate your openness on this issue. We look forward to working with you. I have to apologize to Mr. Fote; however, we are about half-way through the time period that we have to get to the floor for a vote.

So, we are going to have to recess temporarily. We will try to be back within 10 or 15 minutes.

[Recess]

Mr. SAXTON. We will proceed in the manner in which we were previously with Mr. Tom Fote, who is—are you President of the Jersey Coast Anglers or you were President?

Mr. FOTE. I was President. Now, I am the Legislative Chairman for the Jersey Coast Anglers Association and the New Jersey Federation of Sportsmen Clubs. They are non-paid jobs. They basically dump things on me.

Mr. SAXTON. Thank you very much. We have also shared some time on a boat together. So, welcome to the Subcommittee room. You may proceed.

STATEMENT OF THOMAS FOTE, JERSEY COAST ANGLERS ASSOCIATION

Mr. FOTE. I would like to thank Congressman Saxton and the Subcommittee for giving me this opportunity to testify on this important subject.

I would be remiss if I did not thank Congressman Saxton and this Subcommittee for all of their hard work in protecting the marine resource and assisting on fair and equitable treatment for everyone in fisheries management plans.

If you have been on a lake, river, bay, or ocean lately you realize there is a strong need for federally-mandated regulations for the approximately one million personal watercraft that are on U.S. waters.

The manufacturers estimate about 130,000 are sold each year. At this time, at least half of the states in this country have some form

of proposed or disputed regulation restrictions or guidelines for the use of personal watercraft.

This is a growing problem that needs to be addressed federally. I have provided a list of the states who have restricted uses. The number is growing daily. Each region should not have to defend its ecosystem separately to regulate and document the misuses of personal watercraft.

With federally-mandated guidelines, each state could modify the guidelines to fit the needs of that particular region and body of water. No matter where you go in the U.S., local legislators are trying to find a suitable definition and Constitutionally-correct control for these crafts.

I have included two of these definitions in my written testimony. In New Jersey, the Barnegat Bay Watershed Association has been working in conjunction with several groups and the industry to negotiate with local and state legislators and state agencies to define and identify key areas of concern regarding personal watercraft.

In 1993, the Watershed Management Plan for Barnegat Bay included 12 action plan items to address personal watercraft. These action items included: increasing the presence of New Jersey Marine Law Enforcement Offices on Barnegat Bay during the peak boating season, posting No Wake Zones where vessel wakes are documented to be causing erosion of natural shore lines, identifying special use areas, and improving public awareness of existing vessel speed, and operating regulations.

These types of actions are applicable on a Federal level. I have attached an August 7, 1998, letter prepared by the Barnegat Bay Watershed Association to Governor Christine Todd-Whitman.

It identifies seven recommendations for protecting the public safety and preventing environmental damage by use of a personal watercraft. The results are in a research paper entitled "Issues and Problems Associated With Personal Watercraft on Barnegat Bay" by Melissa R. Chinn, which is included in my written testimony.

It details the environmental concerns of operating personal watercraft. The study by Dr. Joanna Burger entitled, "Effects of Motorboats and Personal Watercraft on Flight Behavior Over a Colony of Common Terns," which I have included in my written testimony.

We urge Congress to review the attached documents and look toward creating Federal guidelines for the following issues. Environmentally, we need to restrict shallow water uses in sensitive habitat.

It is documented that when operating a personal watercraft in shallow waters, bottom sediments are suspended there and causes increasing turbidity and decreases light penetration and oxygen to aquatic life.

Operating personal watercraft close to birds, closer to shore near Colonial Water Nesting sites disturb the birds causing them to fly away from the nests and exposing the eggs to increased amounts of harsh sun rays, and also leaving them wide open to predators.

Peak use of personal watercraft corresponds with the nesting season for a variety of Colonial Water Birds that nest in Barnegat Bay, as well as other New Jersey estuaries, and as a matter of fact up and down the coast.

Education. We need a broader voter education curriculum for personal watercraft users. A recent death on a personal watercraft in Barnegat Bay was directly related to a lack of education and an unlicensed driver. I included that article in my written testimony.

One out of 10 accidents on water in 1997 were related to personal watercraft use. Fatalities involving personal watercraft have increased from 20 in 1988 to 83 in 1997. Although the average age of the owners is in the mid-40s, the operators involved in accidents are usually in their teens to mid-30s. More education and stiffer penalties for unlicensed users are clearly necessary.

Enforcement. To ensure the above happens, we need increased funding for our enforcement agents to patrol the water ways entailing the use of personal watercraft. Without more law enforcement on the water, all of the laws you pass will not make one bit of difference.

This legislation should include law enforcement grants for pilot projects to encourage local municipalities. They would allow local government to have an increased law enforcement presence on the water.

If all states require licenses and these licenses were treated like automobile privileges, such as fining those without a license, and confiscating the vessel of those operating personal watercraft without a license, personal watercraft problems would be greatly diminished.

A harsher penalty, such as paying for towing the vessel once it is confiscated, and regular enforcement to ensure the safe and appropriate use of personal watercraft by licensed users is recommended.

It is clear that this is a national growing issue. Congress can begin by focusing its attention on the coastal zone by strengthening laws that control personal watercraft in environmentally sensitive areas.

However, the problems are not isolated to coastal areas, as many inland fresh water lakes are encountering the same types of concerns. For the safety of the users, other boaters, and for the environment, we urge Congress to focus on the issues by synthesizing all state initiatives into one guiding piece of legislation, which every state can implement to their needs.

Two personal notes; one, we are affiliated with Coastal Alliance. We agree with all of their comments. Over the years in testifying before this Subcommittee, it has always been fun and very easy because of the work Sharon McKenna has been doing.

I hear she is leaving. Today is her last Subcommittee. I wish to thank her. The State of New Jersey wishes to thank her, the groups that are involved, when they come before this Subcommittee for all of the help she gives them. So, thank you, Congressman.

[The prepared statement of Mr. Fote may be found at the end of the hearing.]

Mr. SAXTON. Thank you very much, Mr. Fote.

You are right. We will miss her. We have said that many times, but I have sneaky suspicion that she will not be a stranger.

Mr. FOTE. Well, we are going to go fishing in New Jersey.

Mr. SAXTON. Thank you very much. Mr. Fote, the issue that you concentrated on, that being, of course, personal watercraft and

their use, it is fairly obvious that there are some issues to be addressed, including safety, noise, et cetera.

Our concern, obviously, involves those issues. Our concern for the purposes of this hearing had to do with the environmental impact, or the potential environmental impact brought about by the use or misuse of personal watercraft.

Can you comment relative to what your feelings are on those issues?

Mr. FOTE. Yes. An example is Barnegat Bay. We have basically spent a lot of time, money, and energy in increasing the population of Ospreys. Fifteen years ago, there were no Ospreys in Barnegat Bay.

Now, they are starting to come back. We found that the personal watercraft or jet skis as I call them, start running around the nesting areas. The birds get off the eggs.

Those birds are not having chicks. We had the worst year last year. Pete McLane has documented it. Pete has done a lot of work on Barnegat Bay. That is one of the other concerns.

There is a picture I included in my testimony that shows what a personal watercraft is. You know, a motorboat runs from one location to another location. Usually it stops, fishes, crabs, does something.

Personal watercraft, the idea is to run the vehicle; run, run, run, run. There is a picture in there that just basically shows it going around, and around, and around. Well, we have a corresponding picture that shows the submerged aquatic vegetation after he got away from there.

It was going in that round circle that had went around and around. When you stir up the sediment, you also affect the clams in that area. So, the clams basically, the algae that is supposed to be feeding them is basically destroyed. That is what we are worried about.

Now, outboard motors do the same thing. I will agree with you that they will do some of that, but they are not running constantly. They are going from one location to another.

When you have got it going with jet propulsion, it keeps sucking in the algae, small embryos of the fish out there, the small embryos of the clams out there, suck them through the intake and heating them up and killing them. That is a concern.

The safety issues, yes. There are a lot of them. A couple of deaths in States like Florida have had and we have had. We have got to be concerned on how we deal with it.

We are not looking to put an industry out of business. The industry has been working hard. I think the thing about the license would very much help. One of the areas which we broke through and which you are doing a lot of work in Barnegat Bay with, the bay next to the ocean again; that one area there.

The jet skis started using it. There is only a foot of water. All of the wildlife is being destroyed there. It also helps to reinforce the cut, because every time they go through there, they push the water into the sod banks which makes the cut larger and larger.

Those are our concerns.

Mr. SAXTON. Thank you very much, Tom.

Mr. Park, just so you know, I am a sailor, but my daughter and my son-in-law are both personal watercraft users. So, I just do not want you to think that I have a totally one sided point of view on this issue.

The personal watercraft industry, I think, Mr. Park, should be commended for your efforts to improve operator safety and awareness. I think that is extremely commendable. We appreciate that very much.

Mr. PARK. Thank you.

Mr. SAXTON. A large percentage of users do not appear to be following the recommended guidelines, particularly with regard to the shallow water issue and the use in those issues. Other than prohibiting uses in sensitive areas, what else can be done to try to modify this behavior?

Mr. PARK. Well, one thing, obviously, is mandatory education. We were the first group in the marine industry to support mandatory education. That position has now been adopted by the National Association of State Boating Law Administrators.

I know that in Connecticut, which has the longest track record in requiring education, that they have seen a decline in complaints and a decline in accidents. Minnesota had a very aggressive personal watercraft education campaign where they mailed video tapes to all of the operators in the State.

They had a 50 percent decline in accidents last year. As I said before, operation in a shallow area under 2 feet in depth should not be allowed. Neither should other boats that can access such areas.

We would like to work with you on implementing that. We support legislation in the states to implement that.

Mr. SAXTON. Thank you very much.

Ms. Savitz, obviously, we know the situation in New Jersey, that is Mr. Fote and I do and others that work for me know the situation in New Jersey. I am curious to know what your perspective would be from a more national viewpoint.

Ms. SAVITZ. Well, Chairman Saxton, we are obviously not working on this issue as closely as these gentlemen are. My experience with a jet ski was actually in New Jersey as well growing up on Long Beach Island.

It is pretty well-recognized that there are impacts to wetlands and shallow water habitats. We commend your continued work to protect those coastal areas.

Mr. SAXTON. Thank you very much. Mr. Faleomavaega.

Mr. FALEOMAVEGA. Thank you, Mr. Chairman.

I would like to ask Ms. Savitz to be the arbitrator between Mr. Park and Mr. Fote. I would like to ask Mr. Park, we are required to have licenses for dogs, for mopeds; just about everything that goes on the road.

Do you think that maybe we also should have licensing requirements for PWCs?

Mr. PARK. We favor certification requirements that you must pass a course or an equivalency test. We favor that the certificate could be revoked any time. The only difference is when you kind of get caught up in the semantics with this, we would not favor something that you would have to renew, you know, go to some of-

fice and stand in line every 5 years to renew the so-called license. I think the certification would accomplish the same goal.

Mr. FALEOMAVAEGA. As I recall, we had small water skis. Now we have huge ones. I mean theirs are as big as boats.

Mr. PARK. That is right. There has been a craft introduced this year that can accommodate up to four people. The lines between boats and so-called personal watercraft has really been blurred lately. That is true.

Mr. FALEOMAVAEGA. Do you think it is proper also that the government should be involved in, or state governments for that matter, in allocating certain areas where it is required that they can then use the PWCs or do you think they should go anywhere they want?

Mr. PARK. I do not think they should go anywhere they want. I think they should go to areas where other forms of relatively high speed motorized boating is appropriate, but not in areas where it is not appropriate.

Mr. FALEOMAVAEGA. So, they should be properly regulated as far as the use of PWCs.

Mr. PARK. Yes. Mr. Fote talked about 25 states. I believe it is now about 47 states. I could be off by one or two that specifically regulate personal watercraft in some form.

Mr. FALEOMAVAEGA. Do you think that we should do this by way of providing some kind of national legislation or the states themselves should be able to do this on their own?

Mr. PARK. I think the states should be able to do it on their own. It is time that the states have responded.

Mr. FALEOMAVAEGA. Mr. Fote, do you agree with that?

Mr. FOTE. My sister is a County Commissioner in Chelan County in Washington State. She is calling me up and I am sending her all of information on jet skis. The problem is every time you pass a regulation they wind up in court.

California has done it a number of times, Oregon, Washington State. We need you to setup a definition. We need you to setup what a sensitive area's control. We are not asking you to define it in a very particular way, just on a broad base to give the states some guidelines so when they go and put their regulations in, they have some ground to stand upon.

The definitions are important because California has lawsuits that are going on. There are about 20 of them right now in individual states. That is what we are looking for, a Federal law that would give us a definition so we could stand up in court.

The industry and us are not far apart. I am involved with marine trades. Jersey Coast Anglers Association represents 60 fishing clubs. So, we are involved with them all of the time. We are trying to work together. The marine trades are working very hard. It is the unlicensed persons.

A simple example is I have a house on the water. The person next to me lives on the water also. He throws a party on the weekend. You have got 40 guests. They have not been trained. They do not know any of the rules and they all just get the keys and they jump on the jet skis.

He does not support that. I do not support that. The problem is they are the ones that go out and cause trouble. That is what the two deaths on Barnegat Bay were. Well, that is what I am saying.

If you license them, if you can confiscate the vehicle, like you would not give your 14 year old nephew the keys to your car. You should not give him the keys to the jet ski.

If you had to pay a \$250 towing bill because it got confiscated, you would think twice before you gave him the keys to the car. If you lost your insurance because you gave him the key, you would also think twice before.

That would eliminate a lot of the problems. Both of us support that position. They should be trained. They should be certified. If you are on the water without a certification—because we are working in New Jersey doing aquatic education.

So, you will learn these things. You have got to make them responsible for going to the school. If you do not have them going to school, all of the training—the other point I really want to make is that we need law enforcement on the water. Every time we pass a law, and he agrees with me 100 percent.

Barnegat Bay, we do not have enough law enforcement. You should be basically—where you really could help is funding some local municipality grants. Give them some money to hire local law enforcement.

I guarantee you that industry will come up with the jet skis to supply those law enforcement officials so they could come out and enforce the laws, but we need some money there. Once it is proved to the municipalities that this can be done because it is very effective, then they will support us.

They will pickup the funds, you know, a 3 year grid. That is it. Then you take it over and operate it.

Mr. FALEOMAVAEGA. I think, Mr. Fote, your point is well-taken. I am sure the Chairman and certainly myself if there is such a strong feeling among the states, you know, sometimes we get the impression that the states are telling the Congress, get off our backs. Let us do it ourselves.

As you well know, Mr. Fote, there have been countless examples where the Congress has enacted laws and we still end up in court.

Mr. FOTE. Well, on this one, you got Commissioner Shinn coming up after I am, so you can ask him. He is the Commissioner of New Jersey. We are working on the Barnegat Bay Estuarine Program. Some of the environmentalists wanted to put three opening shutters—of a jet ski getting shot or blown up as the opening to the video.

We do not want things like that. I think the states will work closely with you and they really want the regulations and the help from Congress.

Mr. FALEOMAVAEGA. Mr. Fote, I am sure that the Chairman and certainly myself will be more than willing to help in any way that we can. If you have some good wording, or language, or a draft, or whatever that maybe you and Mr. Park could work out, maybe that is something we can look at.

Ms. Savitz, I have got one question for you. With reference to the Coastal Non-Point Pollution Control Program, I think your statement suggest that we ought to incorporate that program into the

Coastal Zone Management Act? Can you elaborate why we should do this?

Ms. SAVITZ. Well, thank you for asking. I just want to note that my arbitration skills were very well displayed. They did not fight at all.

The Coastal Non-Point Program really has not been given a chance to work. It was setup by Congress in 1990 because of a recognition that existing programs were not working and that our coasts were continually being barraged by non-point source pollution.

The way the program is setup is that states develop these plans to control run-off and then eventually implement them. After a while, we have progress. As you know, things do not happen overnight.

States have all developed these plans, or the states that are participating in the Coastal Zone Program have. It is time to start putting them into practice. So, we have moved pretty far down the road, but we have not actually seen the benefits of that work yet.

We feel very strongly about this program. We think it is something that can be done that can really make a difference on the coast and really provide some of the kinds of outcomes that are being looked for. We are concerned about the state of the program, if it is not taken up and reauthorized.

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman.

Mr. SAXTON. Thank you. Mr. Vento.

Mr. VENTO. Well, on that point, is the reauthorization expired for the non-point? Does it expire? Is that the point?

Ms. SAVITZ. The funding authorization has expired.

Mr. VENTO. So, that is why it should be taken because it is an integral part. I mean, that obviously touches on a couple of different areas of responsibility I guess in Congress.

It is integral to what happens in terms of these coastal zone management of plan and the outcome. That is your point?

Ms. SAVITZ. Exactly. Thank you.

Mr. VENTO. I am just trying to understand it. You probably made it well the first time. On the personal watercraft, I think there is a lot of agreement here in terms of having this as a part of the plan, some way to deal with it, and have the states address it.

So, I do not know that you need to get into anything more on it than that as long as there is agreement. Obviously, definition of sensitive areas has to take in safety and other areas.

Some of this is common sense, I guess, they cannot go where there are swimming areas and so forth. I suppose the issue you get into is whether they are treated differently than other types of watercraft.

I think they probably need to be in order to effectively deal with them which is one of the problems. I think one of our problems in Minnesota is we have got sort of a split personality on this is because we have produced some of these products too.

So, I do not know. I hear comments, Mr. Fote, about law enforcement. I think you are exactly with regards to licensure and so forth, but most of those issues can be left up to the states.

There has been an increasing interest both in personal watercraft and I might say snowmobiles in Minnesota in terms of

licensure and treating them more in terms of training. There is also a big pollution problem that occurs with these because of the amount of fuel with the two-cycle engine where it throws a lot of fuel out.

I know that, that occurs with other types of outboard motors as well, but these tend to be going at a high performance rate most of the time. So, they tend to throw out a lot more.

It is mostly for recreation and it is not from point-to-point where you stop and so forth. The same is true, incidently, of air quality problems in automobiles. It is very serious, putting out 50 times more than a car puts out.

Mr. PARK. Can I comment briefly?

Mr. VENTO. Yes, yes.

Mr. PARK. There is an agreement with the EPA to phase in the cleaner engines gradually by 2006. I just wanted to note that for the record on the pollution issue.

You also talked about treating them differently than other boats. With the definition blurring between a personal watercraft and other types of boats, I would hope that is something that you would take into account, if you do believe they should be treated differently. Many of the same types of activities can occur with other types of boats that are not defined as personal watercraft. Again, we would like to work with you on that.

Mr. VENTO. Yes. Well, I understand the Chairman will have to make that. I understand that they probably have to have rules to just keep all of these, especially this type of craft, because there are so many other types of craft that can also get into shallow waters that are motorized.

Obviously, in the case of the fuel, you have such an accumulation, such an intensity of use in some of these bays, you could literally have a situation where it is having an impact in terms of the ecosystem.

Thank you, Mr. Chairman.

Mr. SAXTON. Thank you.

Thank you very much for traveling as far as you each did to come and visit with us today. We appreciate your perspectives. Now, we will move on to the next panel.

The first witness on our fourth and final panel is Mr. Robert Shinn, who is no stranger to those of us who have known him for many, many years. He not only until very recently had a house on the water on Barnegat Bay, but also has served as the mayor of a small community, as a Tree Holder on the County level, which for those of you who do not know, a Tree Holder is the legislator on the County level in New Jersey, and is now the Commissioner of the Department of Environmental Protection in the Whitman Administration in New Jersey. Also, Dr. Marc Hershman, Director and Professor, the School of Marine Affairs at the University of Washington; Ms. Sarah Cooksey, President of the Coastal States Organization, also no stranger to us; and Mr. Gary Lytton, President, National Estuarine Research Reserve Association.

Welcome aboard. Bob, you may begin. Welcome.

**STATEMENT OF ROBERT C. SHINN, JR., COMMISSIONER,
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Mr. SHINN. Thank you, Mr. Chairman and members of this Subcommittee for the opportunity to appear before you today and the importance of this issue to the residents of New Jersey.

Before I go on with my testimony, I just have to compliment you, Mr. Chairman on the lens from the lighthouse. I am a lighthouse fan. I was sitting in the audience and I was struck by the potential of the magnification of the lens verses these lights.

I was thinking if that light was situation in the middle of that globe, you would have a lot more magnification of the yellow and red light and it may, in essence, save the Subcommittee time in testimony. It might be a thought. It certainly would enhance the lens which is gorgeous.

Mr. SAXTON. That is a great suggestion. It would only take 100 years around here to get something like that done.

Mr. SHINN. I also want to thank you, Mr. Chairman, for focusing on this issue and for your support and diligence in working with all sorts of issues in New Jersey from the Jacques Cousteau Research Center to dredging the Tuckeren Seaport Project and working through the issues with us that are very controversial. You have made a great difference and a great contribution to our efforts. I thank you for that.

It was just roughly 10 years ago that, and I know you remember it well, Mr. Chairman, that we had 803 beach closings in New Jersey. We had an intensive monitoring program in New Jersey.

I can tell you, it created absolute chaos in the legislature. Our tourism took a nose dive. Sometimes it is hard to find indicators of progress. This last summer, we had three beach closings in New Jersey, with a more intense monitoring program than we had in 1988.

So, a 10 year time frame, and if you think of 1988 from an economic perspective, we had good economic times in 1988. Good economic times puts pressure on the environment because you have more traveling with cars.

You have more industry, more activity. People go on vacations more, et cetera. I think it is a pretty good indicator that we have made significant progress in good economic times with minimizing our impact on the coast.

Not to say we do not have a lot more work to do because we do. At the same time, we have decreased our bad air days in New Jersey under the One Hour Ozone Standard. In 1998, again, in good economic times we had 45 one hour violations of the Ozone Standard.

This past year, we had 4. So, we are pretty proud of that record ourselves. So, we are making a significant progress in both air and water quality.

I want to state up front that the Coastal Zone Management Act is a Federal-State partnership that works and works quite well. The flexibility it offers the states in meeting their priorities, while maintaining non-obtrusive Federal oversight has served as a model for Federal and State voluntary agreements.

In fact, it is the same kind of results-based performance partnership that we are striving to achieve with EPA through our National Environmental Performance Partnership Process.

We have not quite got to where we want to be, yet, but we are trying awful hard on both sides. I think we are making significant progress. I also wanted to point out that the Coastal Zone Management Act was 20 years ahead of the curve in its effort to promote the principles of sustainability by balancing the goals of a vibrant economy and a healthy natural resource.

I can tell you that it has only been about 5 short years ago that we integrated in our mission statement in New Jersey the integration of environmental quality and economic prosperity.

That was quite controversial at that time. The Coastal Zone Management Act was really ahead of that and recognized that compatibility before certainly we did as a state and many states did not.

Although New Jersey is a small State, it has an extensive coast line zone with nearly 1,800 miles of tidal shore line. Most of our 20 major watersheds containing 6,450 miles of rivers drain directly into tidal waters.

Our coastal zone is the lifeline of some of New Jersey's largest industries, including recreation, tourism, shipping, commercial fishing, and shell fishing. Needless to say, our coast is a vital economic and environment resource to New Jersey.

Managing this resource for sustainability poses major challenges, as you know; the challenges of promoting smart growth, a vibrant economy, a clean environment, and ample open spaces, and a healthy and abundant natural resources.

In fact, our report to the public this year on our cover is a picture of our coast line. Our coast line is our major tourist attraction and our major promotion of the State of New Jersey.

Take for example the Barnegat Bay region in your District. The Barnegat Bay is 42 miles in length. It is a relatively shallow, low flushing bay making it especially vulnerable to pollution.

Its watershed drains 550 square miles of land. In 1995, the U.S. EPA designated Barnegat Bay as a National Estuary ordering the southern end of the Barnegat Bay as, of course, you know the Jacques Cousteau National Estuarine Preserve at Mollica River and Great Bay, so designated by NOAA in 1997; thank to your efforts.

The Mollica River Great Bay System is considered one of the most pristine coastal estuaries of the coast and provides excellent scientific baseline data for managing Barnegat Bay, which has much greater development pressures and much greater indicators of those pressures.

It looks like I am getting the hook. So, I will try to expedite my testimony to the close. I just want to say that New Jersey has been very advanced over the past 2 years in putting its Watershed Management Program together and basing it on a Geographic Information System, or GIS as you noted.

It is well on its way. We have both our coastal program funding. We have our corporate business tax funding. We are working in 96 individual watersheds in New Jersey. We have our—Program and our State Planning Program in place.

We have the new Governor's commitment for \$98 million a year for a 10 year period for the million acre acquisition, and then another \$98 million a year for up to 20 years for debt service satisfaction.

Acquisition is a major part of this. Flexibility is a major part of it. We do not need to reinvent the wheel. We need to enhance partnerships. I think you have got a good history of doing that. So, my suggestion is not to make major changes.

Let us just fine tune what is working well and we are finally into the non-point pollution business and smart watershed planning. Let us continue it.

Thank you.

[The prepared statement of Mr. Shinn may be found at the end of the hearing.]

Mr. SAXTON. Thank you.

Let us move now to Dr. Hershman.

STATEMENT OF MARC J. HERSHMAN, DIRECTOR AND PROFESSOR, SCHOOL OF MARINE AFFAIRS, UNIVERSITY OF WASHINGTON

Dr. HERSHMAN. Thank you very much for permitting me to come and tell you about a study that was commissioned by the Federal Office of Ocean and Coastal Resource Management within NOAA.

This study was called the Coastal Zone Management Effectiveness Study. It was undertaken between 1995 and 1997. Our goal was to determine how well the state management programs were implementing the goals of the Coastal Zone Management Act.

We studied five of the core objectives of the Coastal Zone Management Act: protection of estuaries and wetlands; protection of beaches, dunes, bluffs, and rocky shores; providing public access to the shore; revitalizing urban waterfronts, and accommodating seaport development as an example of a coastal-dependent use.

In carrying out the study, we examined all of the 29 state programs that were approved at the time that we were doing the study. We reviewed documents and data and conducted interviews with state officials.

We sought information on governmental processes, but we also tried to seek information of on the ground outcomes of the program efforts. This was the way our study differed from many that had been done in the past.

Detailed state profiles were developed. There are five national technical reports on file with the OCRM, which soon will be on their Home Page. Article-length summaries will be published in *Coastal Management* journal in Spring of 1999.

We have three major conclusions which I would like to share with you briefly. Our team included six investigators. I am joined here today by Virginia Lee, from the Rhode Island Sea Grant Program, one of the other co-PIs and co-author.

Our team concluded that state CZM Programs are effectively implementing the five CZMA objectives we examined. This conclusion is based on policies, processes, and tools used, and only on limited outcome data and case examples that we could find.

Here are some examples of conclusions. For about 1/3 of the states, there was sufficient outcome data to show effectiveness in

protecting wetlands and estuaries. These 12 states, for which we had adequate data, we believe are representative of all states. This is an area where we think the CZMA is achieving its goal.

Beach and dune resources are being protected based on the high number of regulatory tools in use, and the fact that these tools are being upgraded year-by-year. In fact, there have been over 60 upgrades over the history of the program. Beach and dune protection is the most difficult area to show outcomes on because the protection of the resource must be balanced with pressures to provide recreational opportunity and to protect private property rights.

Public access to the coast is being advanced using regulatory acquisition, technical assistance, education and outreach programs. Roughly, 455 public access related projects were funded in the late 1980s. Coastal managers estimate over 12,000 public access sites are available in 26 of the 29 states.

Over 303 Urban Waterfront Revitalization Districts in the U.S. have benefited from Coastal Zone Management Program funds and design assistance. On average, these districts are half-way to full revitalization. "Half-way" means that infrastructure has been improved and at least one redevelopment project has been completed.

Of 12 "port-active" states, where large scale general cargo ports operate, there are specific policies and regulatory tools to expedite port development, including financial grants, specific port development zones, and expedited regulatory reviews.

Despite these findings which indicate substantial achievement of goals, we believe there are insufficient data for systematic outcome-based performance evaluation of the state programs.

What we need is a common set of outcome indicators that would link state management activities to the national CZMA objectives. Outcome indicators must be developed that balance State and Federal perspectives.

Our study suggest many possible indicators, a selected number of which could be adopted. For example, one measure of wetlands protection could be the area of annual permitted loss per year as a percent of all regulated wetlands. Over a 5 year period, the trends in wetland loss would indicate whether we are moving forward in the protection area.

An indicator of beach and dune protection could be stewardship projects induced by the CZM Program providing access ways, dune cross overs, and designated protected areas.

Progress in waterfront revitalization could be tracked through an accounting of stages reached in the revitalization process, and the scope of the CZM goals achieved.

We believe the time is ripe for Congress to initiate a national outcome monitoring and performance evaluation system. The OCRM should take the lead in implementing this process. Systematic outcome monitoring reporting and evaluation needs external stimulus and leadership.

Coastal managers are already over-burdened with implementation tasks and they face political, legal, and financial pressures administering their programs. Congressional leadership will encourage a common set of indicators allowing comparisons across states and conclusions about national performance.

In this way, on the ground outcomes from the national investment in CZM can be credibly measured. The rest of the testimony, I will ask to be included in the record, if that is possible.

Thank you very much for giving us an opportunity to present the findings of this study.

[The prepared statement of Dr. Hershman may be found at the end of the hearing.]

Mr. SAXTON. Thank you very much, sir. Ms. Cooksey.

STATEMENT OF SARAH W. COOKSEY, PRESIDENT, COASTAL STATES ORGANIZATION

Ms. COOKSEY. Thank you, Chairman Saxton and other members of the Subcommittee for the invitation to testify. I am the Administrator of Delaware's Coastal Management Programs, where we have one of the oldest CZM Programs and one of the newest reserves.

Today, I am testifying in my role as Chair of the Coastal States Organization, which you have said you are very familiar with.

My written statement includes specific draft legislative amendments which we hope you will include in CZMA reauthorization. Please include it in the record.

This morning you have heard testimony from many people representing many different interests. I am here to represent the people that are working in the trenches making the day-to-day decisions that will have long-term impacts on the uses of the Nation's coastal zone.

For example, communities in North Carolina, Florida, and Puerto Rico that need tools to make tough decisions regarding where to allow building after hurricanes have hit. Communities in Louisiana and other states that need assistance to protect and restore wetlands.

States from Oregon to Maryland need to provide better assistance to communities to help them help themselves to make better informed local decisions regarding the cumulative impact of the hundreds of coastal management decisions that are being made every day.

I will focus my oral comments and recommendations on amendments that will build on the CZMA's inherent strengths, and that will provide coastal managers and communities with three important things.

We need tools to assist communities to address the unprecedented growth and development in these precious areas. We need to improve management oriented research, technical assistance, and support so that science is used to make better informed decisions regarding coastal issues.

We also need to increase support for the administration and enhancement of coastal zone programs to further the protection and restoration of coastal resources while allowing for reasonable coastal dependent growth.

This morning we have all talked about all of the good things in the CZMA. I am not going to repeat them. You know that the term "smart growth" and "sustainable development" were movements 20 years ago before the terminology became into vogue.

Again, there are three fundamental issues which the CZMA can help us address. They are the pervasive and persistent affects of land-based sources of coastal pollution. The cumulative and secondary impact of increased development in coastal areas on habitat and water quality, and the potential for inefficient investment in public infrastructure resulting from urban sprawl.

The CZMA should be amended to include a new section to provide dedicated support to states to assist in the development and implementation of local community-based solutions to the impacts of coastal uses and resources caused by increased development and urban sprawl.

In 1998 alone, 124 ballot initiatives were approved by voters calling for improved management of development and conservation of open space. I would like to acknowledge the leadership of Commissioner Shinn and Governor Whitman in these areas.

Last year, Congress approved billions of dollars for highway development. In the State of Delaware, a significant portion of these funds will undoubtedly go, as they should go, to improve access to our increasingly popular coastal resource communities.

Those communities, however, will need our assistance if they are going to properly understand, plan for, and reduce potential impacts. In Delaware alone, \$700 million was spent to manage 10 summer weekend traffic tie-ups and only \$1 million was spent on beach nourishment.

While the development of computer generated Geographical Information Systems, GIS, have expanded greatly the ability to identify the relation of existing development, future growth patterns and natural resources, few local governments have the capacity to utilize these or other sophisticated tools to plan to accommodate the inevitable future growth of these communities, while preserving the quality of life and ecosystem vitality.

I have brought with me a brief description of GIS projects in Delaware that were undertaken with Kent County, which is designed to build their capacity to create build-out scenarios, determine prime areas for environmentally compatible development, and to control urban sprawl.

This project has also resulted in decreasing preliminary permit review time from weeks to hours. We would like to expand this to other counties, but we cannot because of the lack of adequate resources.

We recommend that \$30 million be authorized to support these community growth management projects. This is consistent with the levels recommended in the Administration's Land Legacy Initiative.

We can also improve NOAA's commitment to the application of science and research to on the ground decision-making. This was clearly demonstrated last year during the *Pfiesteria* crisis.

Current provisions under section 310 of the CZMA calling for management oriented research and technical assistance from NOAA to the states should be strengthened. The Secretary should be required to provide a report and recommendation to this Subcommittee regarding the effectiveness of NOAA in providing such research and assistance.

Finally, despite clear national benefits, Federal support for coastal zone management has not kept pace with growing challenges. Funding for state coastal programs in real terms has declined due to inflation and the addition of new States: Texas, Ohio, Georgia.

The member from Minnesota soon will have a new CZM Program. In larger states, grants have been kept at \$2 million a year for the past 8 years. The states recommend increasing authorization levels for base programs for administration and enhancement to \$75 million in order to address this shortfall.

This increase will also help states address polluted run-off, including intrastate and state local coordination of initiatives to address the causes and impacts of non-point pollution; particularly as they relate to land use and linking water quality with other coastal resource protection.

In addition, the CZM provides great general authority to undertake projects to preserve, restore, and provide public access to special areas of the state with conservation, recreation, ecological, and aesthetic value. Current limitations on the use of these funds should be removed and specific funding authorized to enable states to address preservation and restoration of these priority areas.

CSO has proposed a modest annual funding increase of \$12 million. I have included specific projects in Delaware where we have worked together with parties that commonly disagree, agricultures, developers, and environmentalists, to show the processes that are in place in the CZMA can be effective.

Before I conclude, Mr. Saxton, I would like to briefly address two issues of which I know you are concerned. First, the personal watercraft that we have talked about a little bit this morning.

Many states are struggling with the impact of personal watercraft, as well as other recreational watercraft in sensitive coastal areas. CZM Programs are most effective when we are able to work collaboratively with communities.

If the Subcommittee considers amendments to the CZMA to address personal watercraft, we suggest that state programs be permitted to work with communities to identify those areas where personal watercraft or other watercraft should be restricted.

In the long run, the effectiveness of any restrictions will depend upon adequate enforcement and to have adequate enforcement you need the support of the local community. I would also like to bring your attention to Delaware's Environmental Indicators Project, which I have a handout on.

We are seeking to identify environmental goals and prioritize environmental indicators to assess and track our progress in meeting these goals. Other states have similar projects which seek to focus on outcome rather than process goals.

The states would like to work with your staff and NOAA to design appropriate outcome indicators for the CZMA. In summary, the CZMA should be amended to take advantage of its inherent strengths.

I thank you very much for the opportunity to testify. I look forward to working with you on this.

[The prepared statement of Ms. Cooksey may be found at the end of the hearing.]

Mr. SAXTON. Thank you very much, Ms. Cooksey. Mr. Lytton.

**STATEMENT OF GARY D. LYTTON, PRESIDENT, NATIONAL
ESTUARINE RESEARCH RESERVE ASSOCIATION**

Mr. LYTTON. Mr. Chairman and members of the Subcommittee, my name is Gary Lytton. I am the President of the National Estuarine Research Reserve Association which represents the interests of the managers and staff of the 23 designated and 4 proposed research reserves in the national system.

I am the Director of the Rookery Bay National Research Reserve in Southwest Florida. I work for the Florida Department of Environmental Protection. I appreciate the opportunity to come before you today to provide comments on the reauthorization of the Coastal Zone Management Act.

I request that my written testimony be included as a part of the record. Mr. Chairman, one of the most significant challenges in coastal management that we face is the increasingly important need to link relevant science-based information to the needs of coastal communities that are faced with making local decisions that have long term and profound consequences on the coast.

We see that the CZMA is providing a very important framework for Federal, State, and local governments to address that need. The reauthorization of the Act provides a significant opportunity to address local decisions by coastal communities, by improving our ability to assess specific information needs at the local level, to strengthen the capacity of the Federal-State partnership to support relevant science meeting the needs of our coastal communities, and lastly to improve the delivery of science-based information and technology to coastal communities.

The Research Reserve System is designed to promote informed coastal decisions. As I mentioned, we have 23 designated sites and 4 proposed sites. It is important to recognize that research reserves represent biogeographic regions that are dealing with common issues and resources.

Each research reserve represents a biogeographic region with similar issues. We, in the last several years, have developed technical training workshops targeting local decision makers to help improve decision-making at the local level.

We developed graduate research fellowship projects, as many as two, at each one of the research reserves that address non-point issues and other science information needs relevant to local and regional communities.

Lastly, we have developed a system wide monitoring program that is enabling us to assess changes in estuaries relevant to land use activities within our watersheds. I would like to also point out that resource stewardship and education and training have become very important components of the National Research Reserve's Core Mission. Some of our specific recommendations deal with changing some of the language in section 315 to reflect that.

In fact, we have five specific recommendations that I will quickly review with you. We would recommend revision of the section 315 language to recognize the role of resource stewardship, restoration, education, and training, and the NERRS Core Mission.

Secondly, we are proposing in addition to section 315 to recognize the need for a construction and acquisition fund to support the research reserves at the site level. There is this significant need to

continue to complete the core research education and training facilities at our research reserves.

Also, to acquire priority core lands in our reserves. Thirdly, we are asking for increased support for research reserves through increased authorization levels in section 318. Specifically, our association is recommending \$12 million for section 315 operational funds in fiscal year 2000.

Then an additional \$12 million for construction and acquisition funds in a construction fund in section 315. We feel very strongly that these levels will help us meet our needs in completing our mission in the research reserves. Just quickly, I will mention that in 1993 an independent panel recommended a minimum of \$10 million to operate research reserves when we had 22 sites. We are now moving to 25 sites.

We also strongly support the Administration's efforts in the Land Legacy Initiative to increase levels for research reserves.

The fourth point I will quickly mention is that research reserves are developing a new initiative that we are calling coastal institutes that will strengthen the research reserve capacity to deliver quality technical training delivered to coastal decision makers.

We see coastal institutes as an opportunity to increase our partnership with our state CZM colleagues and also with NOAA. We look forward to working with you to develop the coastal institute initiative.

Lastly, I will mention that research reserves are strongly supportive of the concept of measurable objectives for the CZMA. We look forward to working with our state CZM colleagues and also with NOAA to develop relevant outcome indicators that reflect the direction of the Research Reserves Program and its role in the CZMA.

I do want to quickly mention that research reserve managers are also dealing with the issue of personal watercraft. I will give you an example. In Rookery Bay in Southwest Florida, we have developed a cooperative research project with the U.S. Fish and Wildlife Service to identify the science-based information relevant to not just personal watercraft, but to air boats and conventional watercraft operating in shallow water environments.

We see this research effort to basically increase our understanding of the nature of the environmental impacts of these watercraft in these shallow water environments. The results of our research would then be shared with our state CZM Programs with our state and local agencies to help develop management recommendations to address this issue.

Mr. Chairman, thank you for the opportunity to give comments. I will be glad to answer any questions you might have.

[The prepared statement of Mr. Lytton may be found at the end of the hearing.]

Mr. SAXTON. Thank you very much.

We are going to go to Mr. Faleomavaega, the gentleman from American Samoa.

Mr. FALEOMAVAEGA. John Wayne, if it is all right with you.

Mr. SAXTON. John Wayne.

Mr. FALEOMAVAEGA. Commissioner Shinn, I was listening to your testimony which I appreciate very much. Do I gather from all of

the four witnesses on the panel, and any of you can respond, that pretty much you are satisfied with the way the CZMA authorization law is being written.

Do you recommend major surgery in any specific area, besides increasing the funding level, a little trimming here and there, and refinement there?

Is there a major portion of the current law that you feel very strongly about that there should be some major changes?

Mr. SHINN. I feel very strongly that we do not need major surgery. I think we have got a very successful program. I think we do need a common set of indicators in the system. I do not think we ought to convert the whole system to something different to gain that.

We use indicators in New Jersey. We set goals and we look at indicators for water quality improvements. Certainly beach closings is one of our indicators.

I think if we change the system too much, we are going to lose the foresightedness of this system that is built into it now. It is highly cooperative. I think there was a lot of vision in the Coastal Zone Management Act.

We are using it very beneficially now. So, finally we are getting coordination among our programs for a successful result. We really do not want to see major changes because it is finally working very well.

Mr. FALEOMAVEGA. Well, now that we have no problems on the east coast, how about the west coast, Dr. Hershman.

Dr. HERSHMAN. I do not believe major changes are necessary at all. I agree with the Commissioner very much that we have a program that has been 20 years in evolution now.

It is a relatively stable program. Funding levels have gone up and down, but within a relatively narrow range. It has shown a lot of resilience to deal with new issues that have come along. In the 1970s, it was oil and gas. In the 1980s, it was restoration. In the 1990s, it is water quality. To me, it is a mechanism that is really working well. Keeping that structure in place is very important.

The other thing that is extremely important is allowing the flexibility at the state level for each state or territory to respond in a way that is appropriate for it with some guidance at the national level. So, I think we are talking about fine tuning the Act.

Mr. FALEOMAVEGA. Ms. Cooksey.

Ms. COOKSEY. I just would like to add that in general I agree. I think as we move, I would like the analogy on the decade now that we are moving into the next millennium. I think we recognize that the easy tasks have been handled.

Now, we are dealing with the more difficult decisions that have to be made in my opinion to be successful. You need to get buy-in from the local communities. That is what we are focusing on. We think you get more bang for the buck that way.

Mr. LYTON. I would agree with the other comments. Major surgery is not necessary. The frame work is in place. It is a model that works. I would also agree that we really need to do refinements here that would increase our ability to work more closely with coastal communities.

Again, in my opinion, that is where the decisions are made that have perhaps the most profound impacts on our coastal resources. That is where we need to move in the reauthorization.

Mr. FALEOMAVAEGA. As you know, we discussed earlier, Mr. Park and Mr. Fote's concerns, about the PWC. Should this be incorporated into the CZMA in some way or somehow by the Congress?

Should we put in some form of regulatory format as far as addressing the problems that have been addressed earlier by the PWCs? Should this be left entirely to the states and do not let the Congress do this?

Dr. HERSHMAN. I would argue to leave it to the states and for Congress not to get involved. The reason for that is that it is so much a local issue. The way the draft is written at this stage, it requires each state to respond with rules and then provides definitions which I think will cause difficulties.

I agree with the comment that was made earlier. The amendments are out of character with the National Act. The Act has really not included this kind of specific standard on the states, as many of the EPA statutes have. So, I would be cautious in this area.

Mr. SAXTON. May I just ask, our motivation for doing this in this bill is that my experience at least has been that our State legislature has had a difficult time dealing with this issue.

Our motive was not to do it for the states, but to try to provide a little extra push to make it more feasible for something to happen in the state legislatures. Is there a different way that we could go about doing this?

Obviously, something needs to be done in order to facilitate the kinds of things that have been talked about here today to have them happen on the state level. So, we do not want to mandate. We do not want to burden. We do not want to provide for concrete types of steps to be taken.

We want to encourage progress to be made in this area. How can we do that if we do not address it in this bill or in some other vehicle that we have at our disposal?

Dr. HERSHMAN. The draft that I saw calls for requiring an inclusion in the program of an enforceable policy on this area with the definitions involved. That is a departure from the way the CZMA has operated in the past.

In the past, there have been requirements to study particular areas, come up with an assessment of them. Certainly the 309 assessment process was one of those in which states could identify areas of particular concern and then develop strategies for that and there were extra funds available for that.

I guess I go back to the point I made earlier, the initiative has always been with the state to define the specific problem within the broad parameters laid out in the Federal Act.

I think that is one of the strengths of the program. I do not have an alternative to propose at this time. I would certainly be happy to think more about it and see if one comes to mind.

Mr. SAXTON. I am sorry.

Mr. FALEOMAVAEGA. No, Mr. Chairman.

I am trying to follow the Chairman's train of thought here. Not necessarily on a regulatory basis, but giving some sense of guidelines for the states to follow, but not mandating the states to do

so because of the varieties of circumstances that the states are involved.

It is too bad the National Governors Association met recently. Maybe the Governors among the 50 States could have put their heads together, come out with some kind of a resolution or exchange ideas or problems that maybe they cannot resolve at that level. I do not know.

I just wanted to raise that question with the members of the panel. If we are in a position to address the issue from the Congress, or could this be done more effectively among the various states. I just wanted just to raise that issue.

Thank you, Mr. Chairman.

Mr. SAXTON. Thank you.

Let me just bring up an issue that has been discussed throughout the testimony today. Mr. Shinn mentioned correctly that our State, in fact the Northeast, has made great progress in terms of the ocean environment.

Ms. Cooksey also said that we have made progress, but we have dealt with the easy problems which she is correct about. Obviously when you can see a source of pollution, and fashion a response to the problem, and have the resources to do it with, then it gets done. We have done that. We have upgraded waste water treatment systems in the Northeast. We have prohibited chemical dumping in the ocean.

We have prohibited sludge dumping in the ocean. We have been able to control floatables, to a large degree, in the Northeast. These are all problems that you can see and unfortunately experience from time-to-time.

We have had the political will therefore to identify them, to develop the resource base to deal with them, and we have dealt with them. The issues that we have not been successful and the more difficult issues that Ms. Cooksey referred to I think are generally referred to as non-point sources of pollution.

It is our desire to provide an incentive to deal with them as well on the state level. What we have done to-date has been moderately, I guess, successful. That is probably being generous.

What do you think? Is there a way that we can better address this issue in CZM? If so, elaborate for us.

Bob, would you like to start?

Mr. SHINN. I think that is a very thought provoking suggestion because what we are finding is that more and more the impacts, as we regulate sewage treatment plants and get into secondary and tertiary treatment, et cetera, where the investment, once you got beyond tertiary treatment to get that last 3 or 4 percent of treatment processes, is huge. You never get to 100 percent.

We did a specific study in the Barnegat Bay on phosphorous and the origins of phosphorous. I think we had more than 12,000 data points. It was more data points than we have ever had in any study.

The conclusion was that 91 percent of the phosphorous was coming from fertilizers and pesticides relative to individual lawns in the Barnegat Bay system. So, I think a part of the mission ahead of us, if we are going to solve our non-point problems, is really a strong educational program.

That needs to be in our school system. Certainly, GIS is something that I see a great future for in environmental education in school settings. I think that is a challenge that is hard to get our arms around as an environmental agency because we are not traditionally "educators."

Now, we have got a mandatory curriculum in New Jersey that the legislature passed last year. I think that is a good first step. I think environmental education and knowing the individual's impact, we like to think of pollution as someone else polluting our resource.

We like to point across the way. It is sort of we found the enemy and it is us. I think the secret to that is education in our school systems, much the way we got good buy-in for recycling.

I think non-point pollution, which is sort of a little bit of a mysterious word generally, needs to be defined as to what that is and what part individuals play in that.

When you find out it is the car you drive, and maybe some litter that happens inadvertently, and lack of recycling and the way we apply fertilizers and pesticides, and some of the chemicals we use, it is not recognized that the things we do and the drainage from our homes end up in the river, the bay, or the ocean.

It is the only place they can go. So, the whole watershed debate is very, very interesting. If guess if you had a perfect world, you would go back to those 566 municipalities in New Jersey and design them around 96 watersheds.

Everyone would have a lot better feeling about how their basin drains and a lot more recognition. Of course, that is impossible. Just thinking in that context leads you down a path that really ends up with environmental education at the end of this to really solve our problems in a partnership way.

Ms. COOKSEY. I will comment just briefly. I agree with what the Commissioner said. However, I also think we just need to use every single tool we have. I think it is going to take a long time. I think it is going to take a lot of money to clean it up.

I think we need research into treatment. We all know that no matter what your land use is, whether it is agricultural or urban, it contributes. We need to come up with something to implement change.

We have books on best management practices, but I think we need more work in that area. I think we are going to have to spend money in my State for the agricultural community to help them along.

We do not have enough resources right now to do it. Our plan is to base it on a watershed based by impact. It is going to be tough.

Mr. LYTON. Mr. Chairman, I think there are two contributions that the National Research Reserves can bring to the table on non-point pollution.

The first is going back to our system wide monitoring program. We have all 25 sites as we develop our national system. We are developing the capability to assess change in water quality linked directly to land use activities within our watersheds.

As we increase our understanding of the linkage between those changes, we can work more efficiently with our coastal communities to help them deal with their non-point issues.

The second and perhaps more to the point, I agree with Mr. Shinn on environmental education. Research reserves do have professional staff that not only do environmental education for K-12, but we have taken on technical training as a very important part of our mission. Specifically, we target decision makers, including land use planners, the regulatory agencies and coastal managers that deal with non-point issues.

It is very important that we take the science that Sarah was talking about and link that to the decision makers that are dealing with non-point. Research reserves, again, are well-placed to help us get there.

Mr. SAXTON. Thank you very much.

The gentleman from American Samoa.

Mr. FALEOMAVAEGA. Mr. Chairman, I just want to thank the members of the panel for traveling such long distances to come and to testify in our Subcommittee this morning.

I sincerely hope that whatever our Subcommittee will produce as a part of the authorization to the CZMA will be to their satisfaction. If not, we look forward to hearing from them as well.

Thank you, Mr. Chairman.

Mr. SAXTON. Thank you for coming long distances to be with us today. We appreciate it very much. We also appreciate the fact that you have hung in here with us for the better part of 3 hours.

We do not always have hearings that last this long, but this one was very interesting, and the part that you all played in helping us to understand this issue a little better is much appreciated.

[The prepared statement of the NOIA may be found at the end of the hearing.]

[The prepared statement of Mr. Pallone follows:]

STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF NEW JERSEY

Mr. Chairman, thank you for holding this oversight hearing on the Coastal Zone Management Act (CZMA). I am pleased to see that you have invited two distinguished individuals from New Jersey to testify today. Tom Fote of the New Jersey Coast Anglers Association is respected throughout the state for his expertise in coastal issues. New Jersey Department of Environmental Protection Commissioner Robert Shinn has worked at the local, county, and state levels of government, and has devoted much of his career in public service to resource management.

Congress last authorized the CZMA in 1996, and the current authorization expires at the end of this fiscal year. As the Committee works to develop a CZMA reauthorization measure, I want to express my hope that it reflect our strong commitment to the protection, enjoyment, and responsible management of our coast.

As a native of the New Jersey shore, I know firsthand the importance of safeguarding our coastal resources. The CZMA gives states the resources necessary to protect the fisheries, wildlife, and coastal interests that are so important to our states' economies.

The CZMA governs important aspects of our coastal resources—far too many to be included in my statement today. However, Mr. Chairman, I want to highlight a few that are of particular concern to me.

The CZMA was amended in 1990 to incorporate the Coastal Nonpoint Pollution Control Program, also known as Section 6217. Nonpoint source pollution is one of the most significant sources of water pollution affecting our nation's coastal waters. It contributes to beach closures, threatens our commercial and recreational fisheries, compromises public health, and has an overall negative effect on coastal tourism. States and the Federal Government have devoted much time and effort into devel-

oping plans to curb contaminated runoff into our coastal waters. I hope today's witnesses will address the benefits of including a sufficiently funded Coastal Nonpoint Pollution Control Program in a CZMA reauthorization measure.

Living in a coastal community has allowed me and my family unlimited opportunities to enjoy the shore. Sadly, the public's access to our nation's beaches is declining. More than twenty five years ago public access to the shoreline was established as a focal point for coastal zone management. Resource Management Improvement Grants under Section 306A and Coastal Zone Enhancement Grants under Section 309 provide funds for states to encourage public access. Despite substantial accomplishments, however, the goal of a highly accessible coast remains unfulfilled. I am particularly interested in learning more about states' efforts to enhance universal public coastline access and in knowing how changes to these grants will affect access programs.

Finally, the use of personal watercraft is of growing concern. I have recently received letters from constituents expressing their concerns about "jet ski" use within inshore waters. I would like to hear from those closely involved in this issue. This relatively new form of coastal recreation presents many questions. What are the effects of personal watercraft on wildlife and fisheries? Do "jet skis" in fact detract from coastal aesthetics and add to noise pollution? What constitutes a "no wake" speed when these small craft are designed to skim over water at high speeds. Answers to these questions are needed to help us decide if we should address this issue in a reauthorization measure.

In closing Mr. Chairman, thank you again for holding this hearing on something that is so very important to us all. I look forward to working with you to develop a thoughtfully crafted Coastal Zone Management reauthorization.

Mr. SAXTON. Thank you very much.

The hearing is adjourned.

[Whereupon, at 1 p.m., the Committee was adjourned.]

[Additional material submitted for the record follows.]

STATEMENT OF HOWARD PARK, CONSULTANT, PERSONAL WATERCRAFT INDUSTRY ASSOCIATION

Thank you for the opportunity to address the Subcommittee today. My name is Howard Park and I represent the Personal Watercraft Industry Association. PWIA represents the five major manufacturers of personal watercraft (PWC), Arctic Cat Inc. based in Thief River Falls, Minnesota, Bombardier Motor Corp. of America, based in Melbourne, Florida, Kawasaki Motors Corp.-USA, based in Irvine, California, Polaris Industries, Inc., based in Minneapolis, Minnesota and Yamaha Motor Corp.-USA of Cypress, California. PWC are often referred to as "Jet Skis," Kawasaki's brand name and a trademark of that company. Three PWIA member companies also make motors for larger types of boats.

This is the first time that I have ever testified before Congress. My colleagues and I have, however, testified in numerous states on countless occasions. We believe that regulation of PWC and other forms of boating belongs at the state and local level. Apparently, the concerns that led to inclusion of PWC regulation in this legislation before the Subcommittee originated with concerns about PWC operation in Barnegat Bay, in New Jersey. Prior to seeing the language of the bill before you, we were (and still are) in support of state legislation, Assembly Bill 653, to keep PWC out of shallow areas of Barnegat Bay. It is early in the legislative session in New Jersey, regardless of the outcome of the legislation before this Subcommittee, we would welcome the opportunity to work with those who are concerned with the issue in New Jersey.

It has always been our position that PWC (and other motorized boats) should not operate in shallow waters less than two feet in depth. We have never opposed—and in fact support—legislation that prohibits such operation. Our safety materials reflect this position. There is no basis to suggest that PWC should be singled out for such prohibitions. No motorized boat should operate in such shallow waters. Some say that only PWC should be prohibited from operating in shallow waters because only PWC can access such areas. That is simply false. Many types of jet-propelled boats and hovercraft, not defined as PWC, can access waters of two feet or less in depth.

There has been considerable research into the effects of PWC, boating and other human activities on wildlife and aquatic vegetation. Probably the most extensive studies of this subject were conducted for the Florida Department of Environmental Protection and Oregon Ocean Policy Advisory Council. Neither study found any basis to single out PWC for special regulations.

In addition, according to Dr. James Rodgers, a biologist with the Florida Game and Freshwater Fish Commission, who has conducted extensive research into this issue, "A PWC moving at idle speed obliquely to the birds should produce the same flushing response as an outboard motorboat. Similarly, a fast moving motorboat heading directly at the birds with a deep V bow throwing white spray should produce a flushing response similar to that of a PWC being operated in a similar manner."

I will leave copies of several studies related to wildlife disturbance with Committee staff and I have a limited number of copies for members. In any case, our recent progress with noise reduction technology promises to reduce any disturbance that PWC operation may cause.

Our most serious concern is that the bill would require that personal watercraft (PWC) be operated at no-wake speed or less in "sensitive" areas, defined as "any area in the coastal zone that contains living marine resources and birds that may be impacted during the operation of a PWC." PWC should not be operated in areas where they have a negative impact on the resource—where good science supports such a conclusion—we have no problem with that. We believe that all boats should always be operated in an environmentally responsible manner.

We do have a serious concern, however, with the extremely broad definition of "sensitive area" in this bill which can be interpreted to include any area with any marine life, even microscopic organisms. Thus, this bill could cover the entire coastal zone and all the waters within it. We are especially concerned that this would be interpreted by the media and the public as a "ban" on PWC operation. This would have a chilling effect on our industry and the rights of over 5 million PWC owners and operators.

We believe that the approach of segregating one type of vessel is unreasonable and not supported by good science.

We know there are sincere concerns about PWC operation. The steps we are taking to meet these concerns include:

- new technology introduced in the past year which reduces sound emissions from PWC by 50 percent;

- our support of mandatory education for PWC operators, several states have adopted legislation based on our model;
 - tough model legislation, at the state level, to regulate businesses that rent PWC;
 - under a voluntary agreement reached with the EPA, spending at least tens of millions of dollars (so far) to develop cleaner engines that meet or exceed EPA targets;
 - lending, free of charge, over 1,500 PWC each year to law enforcement agencies to assist them in on-water enforcement and rescue efforts;
 - supplying free print and video safety materials with each PWC that is sold and many thousands of these materials to law enforcement and education institutions;
 - supporting a minimum age of 16 for PWC operation.
- Our model legislation for regulation of PWC is tougher than all but a small handful of states.
- Thank you. I would like to submit several written materials for the record and I would be pleased to answer questions.

Bombardier

ONBOARD SPRING 1999

Cleanly and Quietly

In 1998 Bombardier showed its commitment to producing cleaner and quieter watercraft by introducing two industry firsts — the D-Sea-Bel™ sound reduction system and Rotax® Fuel Injection (both on the GTX⁺ RFI model watercraft). With these innovative new technologies, Bombardier once again has 'raised the bar' for the entire industry. Heading into 1999, Bombardier is proud to build on this momentum and expand their latest technologies to the rest of the watercraft lineup.

With the introduction of the exclusive Rotax Fuel Injection on the 1998 GTX RFI model, Bombardier was able to eliminate carburetors, enabling the watercraft to consume fuel more smoothly and efficiently and burn it cleaner. For 1999, Bombardier is extending its pioneering ways with the 1999 GTX RFI and GSX RFI models. Bombardier is continuing to fine-tune calibrations and set the industry standard with increased fuel efficiency and decreased emissions output, compared to carbureted versions.

Also unveiled last year on the GTX RFI model, the D-Sea-Bel sound reduction system employs cutting-edge sound reduction technology, proven in the automotive industry to lower sound emissions substantially.

For 1999, the D-Sea-Bel sound reduction system will be standard on all watercraft (except the SPX model).

"The D-Sea-Bel system has received rave reviews from both industry supporters and, more importantly, industry critics," said Henry Lonski, vice president/general manager, SEA•DOO watercraft, Bombardier Recreational Products. "By equipping most of our 1999 SEA•DOO watercraft models with D-Sea-Bel, Bombardier is illustrating a firm commitment to leading our industry in a quieter direction."

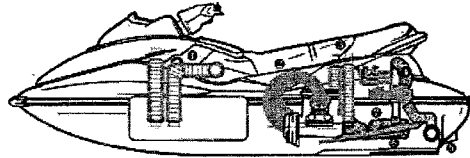
Leading the Charge

The D-Sea-Bel system utilizes a muffler and sound suppression system combined with composite parts to dampen engine noise levels at all speeds. The muffler and intake ports are wrapped with acoustical insulation and synthetic casing to reduce sound levels at both the intake and exhaust areas.

In addition, the D-Sea-Bel system uses Hemholtz Resonators that target and suppress specific noise frequencies. Customized to the engine, the Hemholtz Resonators employ several different length tubes attached to the exhaust pipe. While exhaust flow does not travel through the tubes, sound waves pass into the tube, bounce off the back wall and cancel out incoming waves — eliminating certain low frequency sounds. By mounting the pump on a rubber housing, the D-Sea-Bel system also reduces high frequency sound caused by vibration between the pump and the hull.

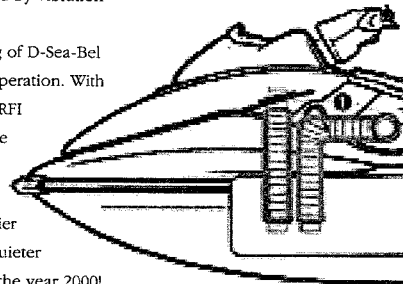
Extensive land and water-based sound testing of D-Sea-Bel has produced impressive results at all levels of operation. With the D-Sea-Bel sound reduction system, the GTX RFI model has a full 50 percent lower Sound Pressure Level than the 1997 GTX' model with the 800 Series Rotax marine engine.

With its many industry innovations, Bombardier continues to lead the industry in a cleaner and quieter direction in 1999. Who knows what we'll see in the year 2000!



- | | |
|---|----------------------------|
| 1 | Forward Air Intakes |
| 2 | Tuned Exhaust Pipe |
| 3 | Rear Air Intakes |
| 4 | Upper Resonators |
| 5 | Exhaust Outlet |
| 6 | Insulated Muffler Assembly |
| 7 | Lower Resonator |

Bombardier is illustrating a firm commitment to leading our industry in a quieter direction.





FOR IMMEDIATE RELEASE

Contact: Bob Gonsalves or Kari Miyamoto
Bob Gonsalves & Associates, (909) 778-9160

**YAMAHA DEBUTS NOISE REDUCTION AND EMISSIONS CONTROL
SYSTEMS WITH 1999 WAVERUNNER WATERCRAFT LINE**

CYPRESS, Calif. — Yamaha Motor Corporation, USA introduces two important systems with its 1999 WaveRunner® product line that address the issues of noise and emissions output head-on.

The Yamaha Sound Suppression System (Y.S.S.S.) and the Yamaha Platinum Plus System (Y.P.P.S.) are two common-sense approaches that integrate proven advanced technologies to deliver significant reductions in noise and emissions output respectively.

Yamaha Sound Suppression System

The Yamaha Sound Suppression System of integrated noise reduction components target the three common types of noise — intake noise, exhaust noise and noise from vibration. In fact, Yamaha has quietly built quieter watercraft for some time now and has integrated noise reduction measures on all of its three-person models to include the XL700 and XL760.

To reduce intake noise, an air intake resonator is added. This resonator is an additional air intake box with multiple maze-like chambers inside. By forcing the air through this maze, sound waves from the air vacuum and engine back-pressure are weakened by the multiple walls inside the resonator, eliminating a direct path for the sound waves to escape. Also, there are additional air intake silencers located under the hood and under the seat. The honeycomb structure of these silencers reduces sound wave intensity.

-more-

YAMAHA MOTOR CORPORATION, U.S.A.
6555 Katella Avenue • Cypress • California • 90630-5101 • 714-761-7300 • Fax 714-761-7859

TECHNOLOGIES
PAGE 2

At the exhaust point, Yamaha employs an exhaust resonator that works on the same principal as that of the air intake resonator, eliminating a direct path for sound waves to travel. Added to this exhaust resonator is a series of baffles that create counter frequencies that oppose the sound frequencies created by the exhaust pipe. The overall effect is a quieter watercraft.

The third element in Y.S.S.S. is an SMC hull liner that is bonded to the hull. Noise-absorbing foam is injected between the liner and hull, making the watercraft quieter while increasing the durability of the hull.

The benefits of Y.S.S.S. are most evident when considering the XL1200 Ltd., which features the largest displacement powerplant in the industry with a whopping 155 horsepower. Y.S.S.S. reduces the sound intensity level of the XL1200 Ltd. by 70 percent of last year's XL1200, which had 20 less horsepower and 45cc less engine displacement.

Yamaha Platinum Plus System

The Yamaha Platinum Plus System is a high-tech, automotive-based catalyst that is artfully integrated into the exhaust system. This catalyst employs platinum and rhodium substrate that promotes oxidation and conversion of controlled pollutants. The result in the XL1200 Ltd. is up to a 60 percent reduction in exhaust emissions from last year's XL1200 model. In Yamaha's view, Y.P.P.S. is the most reliable, cost-effective, reduction system available today.

By employing proven technologies, Yamaha delivers significant reductions in emissions output and noise levels without compromising performance and reliability. By taking a common sense approach to issues important to non-users that share the water with personal watercraft owners, Yamaha takes the lead toward making boating more enjoyable for all.

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STATEMENT OF MARC J. HERSHMAN, JAMES W. GOOD, TINA BERND-COHEN, ROBERT F. GOODWIN, VIRGINIA LEE, AND PAM POGUE*

The Federal Coastal Zone Management Act (CZMA) was adopted by the U.S. Congress in 1972. It provides a national framework for improved state management of the coastal lands and waters of the nation's coastal zone.

The Coastal Zone Management Effectiveness Study was undertaken between 1995 and 1997 to determine how well state coastal management programs in the U.S. were implementing the CZMA. The study was commissioned by the Office of Ocean and Coastal Resources Management (OCRM) within NOAA, and carried out through the National Sea Grant Program, also within NOAA.

We studied five of the core objectives of the CZMA:

- protection of estuaries and coastal wetlands
- protection of beaches, dunes, bluffs and rocky shores
- provision of public access to the shore
- revitalization of urban waterfronts
- accommodation of seaport development (a coastal dependent use)

In carrying out the study we examined systematically all of the 29 state programs that were approved at the time, reviewed documents and data, and conducted interviews with state officials. We sought information on the governmental processes as well as "on the-ground" outcomes of the program efforts. Detailed state profiles, five national technical reports, and article-length summaries are on file with OCRM and will be on their Home Page. The articles will be published in the Spring of 1999 in Coastal Management journal.

We offer three major conclusions:

State CZM programs are effectively implementing the five CZMA objectives examined. However, this conclusion is based on assessment of the policies, processes and tools used, and on only limited outcome data and case examples that were available.

For about one-third of the states there was sufficient outcome data to show effectiveness in protecting coastal wetlands and estuaries. If these states are "representative" of all states, then outcome data shows that this CZMA objective is being met.

Beach and dune resources are being protected based on the number of regulatory tools in use and the upgrades to these tools over the years. Beach and dune protection must be balanced with pressures to provide recreational opportunity and to protect private property rights.

Public access to the coast is being advanced using regulatory, acquisition, technical assistance and education/outreach programs. Roughly 455 public access-related projects were funded by coastal programs in the late 1980s, and an estimated 12,000 public access sites are available in 26 of the 29 states.

Over 303 urban waterfront revitalization districts in the U.S. have benefited from CZM program funds and design assistance. On average these districts are halfway to full revitalization—infrastructure has been improved and at least one redevelopment project has been completed.

Twelve "port-active" states, where large scale general cargo ports operate, use special policies and regulatory tools to expedite port development, including financial grants, specific port development zones, and expedited regulatory reviews.

There are insufficient data for systematic, outcome-based performance evaluation of state CZM programs. Needed is a common set of outcome indicators that would link state management activities to national CZMA objectives.

Outcome indicators must be developed that balance state and Federal perspectives. Our study suggests many possible indicators, a selected number of which could be adopted. For example one measure of wetlands protection could be the area of annual permitted loss per year as a percent of all regulated wetlands. A measure of beach and dune protection could be a count of stewardship projects induced by the CZM program which provide beach accessways, dune crossovers, and designated protected areas. And, progress in waterfront revitalization could be tracked through

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an accounting of stages reached in the revitalization process and the scope of CZM goals achieved.

The time is ripe for Congress to initiate a national outcome monitoring and performance evaluation system. OCRM should take the lead in implementing the process.

Systematic outcome monitoring, reporting and evaluation will not occur without external stimulus and leadership. Coastal managers are already over-burdened with implementation tasks and they face political and legal pressures administering their programs. Congressional leadership will encourage a common set of indicators allowing comparisons across states and conclusions about national performance. In this way on-the-ground outcomes from the national investment in CZM can be credibly measured.

SUMMARIES OF THE FIVE NATIONAL STUDIES OF THE CZME*

Protecting Estuaries and Coastal Wetlands. Good et al. (1999) found sufficient outcome data to make “probable” effectiveness determinations for about one-third of the states examined. Of these, they found that 80 percent were performing at expected or higher levels in protecting wetland and estuary resources considering issue importance and strength of processes used in the state. If these states can be shown to be representative, they argue, then the national program as a whole can be considered effective for this objective.

Good et al. (1999) followed a four-step process in their study, first examining issue importance, next the potential effectiveness of CMPs based on process indicators, then outcome effectiveness based on on-the-ground outcome indicators, and finally, overall performance based on a comparison of outcome effectiveness with issue importance and potential effectiveness.

To rate and compare the importance of estuary and coastal wetland protection as a CZM issue in each state, the authors chose seven issue importance indicators—three environmental, two social-demographic, and two perception-based. To them, issue importance serves as context for determining the level of program performance.

Next, Good et al. (1999) defined a “model state CMP” for estuary and wetland protection based on the most important processes and tools identified by all the states. From the model CMP, criteria were developed and applied to estimate the potential effectiveness of each state program “on paper.” Potential effectiveness ratings increased as the state approached the model.

Outcome indicators were defined as “measures of on-the-ground protection provided by the CZM processes and tools.” An example is the area of wetland compensatory mitigation required in a CZM regulatory program as documented in the permit process. This indicator, along with other measures of regulatory, planning, acquisition, and nonregulatory outcomes, were used to estimate outcome effectiveness. The authors found data sufficient to make at least “probable” outcome effectiveness determinations for just 12 of the 29 CMPs. They rated ten of these 12 (83 percent) as either “effective” or “very effective” using model-based rating criteria.

Finally, Good et al. (1999) compare outcome effectiveness ratings with issue importance and potential effectiveness ratings in order to place program performance in the unique context of each state. To rate overall performance, they compare outcome effectiveness results with the seriousness of the problem in the state (issue importance) and with the ability of the state’s decision-making institutions to deal with the issue (potential effectiveness). As they put it, this allows a determination of overall performance for a state that suits its particular situation, rather than a determination based on a “one size fits all” approach. Thus a state with a low issue importance rating is not held to the same standard as one that rates that issue as high.

Protecting Beaches and Dunes. Bernd-Cohen and Gordon (1999) conclude, based on process indicators and case examples, that coastal programs are effectively addressing the goal of protecting beach and dune resources. To support their conclusion they cite to the wide range of tools in use, the progressive upgrading of these tools over the years, and numerous case examples of sophisticated tools now in use. Outcome data were inconclusive and available in only a few states.

The authors outline 26 tools used by the states to protect beaches and dunes, from which they derive ten key “process indicators of effectiveness.” The majority of these indicators are regulatory, including controls over construction and public access where these may damage natural resources. They highlight one commonly used de-

* An Overview article summarizing the entire study is at Hershman, et al., 1999.

vice, coastal setback regulations, to show its potential utility to protect resources and reduce hazards. However, they also point out that a carefully developed setback law often includes many exceptions designed to enhance recreation or protect private property rights. And because outcome data that show the results of implementation are inconclusive and revealed mostly in case study examples, they cannot make definitive conclusions about the effectiveness of setbacks, or other regulatory and planning devices, that are designed to protect the resources.

Bernd-Cohen and Gordon (1998) highlight the wide range of tools in use, including regulatory programs, planning coupled with regulations, stewardship of publicly owned lands, research and public education. They point out that CZM programs have progressively upgraded their management tools to improve how they deal with development impacts and long-term effects. And, they present case examples that show some highly sophisticated tools now in use to address the technical and legal issues. These achievements, when viewed against the backdrop of conflicting policies and multiple governmental programs concerned with beach and dune resources, suggest to them good progress toward the protection goal.

The authors believe that meaningful outcome monitoring and evaluation are possible for this topic area. The outcome data collected, though inconclusive, suggest that states are both capable and desirous of more rigorous documentation of results. Bernd Cohen and Gordon (1998) present a list of outcome effectiveness indicators that, if systematically monitored and reported across all states, could serve as the basis for a national performance evaluation system for this issue area.

Providing Public Access to the Coast. Pogue and Lee (1999) conclude that state CZM programs are national leaders in improving access to the coast, first through a wide range of acquisition, regulatory and planning tools, and more recently through innovative technical assistance and public education and outreach programs.

The authors note that the CZMA was the first Federal law to establish a public access policy for the U.S., and that the state CZM programs are in the forefront implementing this goal. States use a wide range of tools to achieve the goal including acquisition, regulatory and land use requirements, technical assistance and public education and outreach. The diversity of approaches is illustrated through a variety of case examples.

Although hard numbers for measuring outcomes were not available, Pogue and Lee (1998) note that \$35 million (unadjusted 1988 \$\$) were spent on 455 public access related projects between 1985 and 1988, roughly 12 percent of the total CZM funding available in that period. The authors report an estimate of over 12,000 public access sites available in 26 of the 29 states, though the linkage with CZM program actions could not be studied. The states with the most sites tend to have the greatest number of processes available for promoting access. The authors note a policy shift in the 1990s away from direct acquisition and regulation toward technical assistance and public outreach—a recognition of the overall decrease in funds available for access. Innovative approaches such as design standards, legal research and signage are highlighted. They also stress the role of CZM programs in balancing resource protection needs with growing public demand for beach recreation opportunities.

Chief among their recommendations is that CZM programs conduct needs assessments to determine the kind of access needed in the future and where it should be located. And, due to the creativity and innovation used to achieve access they argue for a clearinghouse, or register, for documenting and sharing information on innovative tools and programs.

Revitalizing Waterfronts. Goodwin (1999) found 303 urban waterfront districts which have benefited from state CZM programs. Districts on average are roughly halfway to full revitalization (infrastructure has been improved and at least one redevelopment project is completed). Fourteen coastal programs are determined to be the most effective in waterfront revitalization because of their on-the-ground outcomes and the close linkage between CZM policies, processes and the outcomes. Revitalization is occurring mostly in those areas of the country experiencing industrial change—the rust belt, the Pacific Northwest, and New England.

Goodwin (1999) found that providing funds for waterfront planning and public improvements was considered the most important of all the tools used by coastal managers to revitalize waterfronts. He documents CZM funds of over \$30 million leveraging over \$430 million of non-CZM funds, an amount he believes is an underestimate. In addition to identifying funding and the wide range of additional tools used by the coastal management programs, he defines key process outcomes such as adopted waterfront revitalization plans and design studies performed to achieve on-the-ground outcomes. Goodwin develops an ideal waterfront revitalization pro-

gram and determines, in a similar way to Good, et al. (1999), the degree to which each of the states approaches the ideal.

Outcomes themselves were in three forms: extent of revitalization in the state measured by the number of districts involved; stage of revitalization achieved in each district; and scope of resulting on-the-ground improvements that revitalize and achieve coastal management goals. For example he shows the number of districts where revitalization is complete, the number having reached certain milestones such as completed plans, infrastructure, or projects, and the number of districts achieving different types of uses.

Goodwin finds that the greatest needs nationally are to formulate an urban waterfront data base that would describe the amount of waterfront revitalization that has occurred and that still remains unfinished, and to elevate waterfront revitalization to a national objective under section 309 of the CZMA.

Accommodating Seaport Development. Hershman (1999) concluded that 12 “port-active” states are effectively achieving the goal of the Act because of their specific policies and management tools which facilitate port development, and because of preliminary evidence of “organizational learning” in CZM and port agencies derived from case studies in ten of the twelve states.

Seaport development is one of the coastal dependent uses to which CZM programs are to give priority consideration. Hershman focused on large-scale general cargo ports because of the role they play in global trade and their importance to the nation, as well as the state in which they are located. He found that most states give port development only general consideration in policies and procedures, similar to any other coastal developer, but that twelve states stand out as “port-active” states. These states have significant port facilities from a national perspective (or relative to their size), and correspondingly these CZM programs have more specific policies and techniques to help review and facilitate port development. These specific tools include financial grants, specific port zones, expedited regulatory processes, and other tools.

According to Hershman, measuring outcomes in meeting the seaport development goal is problematic; whether a port is built or not is dependent primarily on economic and locational factors. CZM can influence the timing, shape and manner of port development, but this depends on the context in every case and normally reflects other CZM objectives such as wetland protection or public access. He relies, therefore, on the notion of “organizational learning,” where the manner in which the port and CZM organizations interact to accommodate their mutual needs becomes a measure of effectiveness. If what they learn from each other results in changed objectives within each organization and helps resolve differences, then the port and CZM organization are being effective in meeting the objectives of a multi-purpose Act like the CZMA. Through case examples he suggests that they are, in effect, beginning to integrate the multiple objectives of the CZMA within each organization.

Bernd-Cohen, T., and M. Gordon, 1999. State coastal program effectiveness in protecting natural beaches, dunes, bluffs and rocky shores”. *Coastal Management* 27: ——— to ———.

Good, J. W. J. W. Weber, and J.W. Charland, 1999. Protecting estuaries and coastal wetlands through state coastal management programs. *Coastal Management* 27: ——— to ———.

Goodwin, R. F., 1999. Redeveloping deteriorated urban waterfronts: The effectiveness of U.S. coastal management programs. *Coastal Management* 27: ——— to ———.

Hershman, M. J., J. Good, T. Bernd-Cohen, R. Goodwin, V. Lee, P. Pogue, 1999. The effectiveness of coastal zone management in the United States. *Coastal Management* 27: ——— to ———.

Hershman, M. J., 1999. Seaport development and coastal management programs: A national overview. *Coastal Management* 27: ——— to ———.

Pogue, P., and V. Lee, 1999. Effectiveness of state coastal management programs in providing public access to the shore: A national overview. *Coastal Management* 27: ——— to ———.

STATEMENT OF NATIONAL OCEAN INDUSTRIES ASSOCIATION AND THE AMERICAN PETROLEUM INSTITUTE

Thank you, Mr. Chairman, members of the Subcommittee. We appreciate this opportunity to provide our views on reauthorization of the Coastal Zone Management Act (CZMA).

This statement is being made today on behalf of the members of the National Ocean Industries Association (NOIA) and the American Petroleum Institute (API). The over 270 members of NOIA constitute the only trade association representing

all segments of the domestic offshore oil and gas business, including drillers, producers, service companies and equipment manufacturers. The API represents over 400 companies involved in all aspects of the exploration, production, transportation, refining and the marketing of oil and natural gas.

Together these associations represent an important and nationally significant marine business. A business that has provided the energy necessary to fuel the nation's growing economy. A business that has contributed significant reserves to the Federal Treasury (\$5.2 billion FY 1997 from bonus bids, rents and royalties alone) and employs hundreds of thousands of American workers. In addition, it is a business that has conducted its operations in an environmentally responsible manner.

As an important coastal and marine stakeholder, the oil and gas business holds significant interest in the CZMA. While we support the Act's goal to formulate a comprehensive and coordinated management program to achieve marine economic development and coastal resource protection, we believe improvements can be made that can benefit the coastal environment as well as all coastal and marine stakeholders.

Mr. Chairman, NOIA and API testified before this Subcommittee in 1995, during a hearing on your bill that reauthorized the CZMA (H.R. 1965). During that hearing we raised concerns over the Act's failure to satisfy a key national objective to coordinate and simplify the "administrative procedures to ensure expedited governmental decision-making" for multiple-use coastal resource management.

Our comments and experience with the timeliness of appeals for comprehensive federally approved plans for oil and gas exploratory drilling, pursuant to the Outer Continental Shelf Lands Act (OCSLA), proved the CZMA process is "complex and anything but expedited." Through your leadership, Mr. Chairman, the Subcommittee responded to these concerns by adding much-needed statute of limitations for the Commerce Secretary's review. NOAA is now in the process of promulgating regulations to implement this streamlining measure.

Today we would like to comment briefly on several other areas where we believe this Subcommittee can enhance and improve certain aspects of the CZMA. Highlighted below are a few recommendations. They are not inclusive, but rather illustrate areas where we wish to work with you and the Subcommittee during the 1999 CZMA reauthorization process to improve the implementation of the Act.

- Federal agencies, states and the business community agree that many Federal activities have only a *de minimis* impact on coastal uses. Requiring extensive consistency determinations for each and every activity regardless of the significance of the environmental impacts adds undue cost and resource expenses to coastal managers and Federal agencies. As an example, certain Federal activities involve no more than the publication of schedules or calendars of anticipated actions or other like policy documents. It appears unnecessary to require an extensive consistency determination for these actions.

We suggest that the Subcommittee seek adoption of a legislative solution to this matter. A process to limit the required review of *de minimis* Federal activities similar to the categorical exclusion process in the National Environmental Policy Act (NEPA) may be one area to explore.

- We endorse your suggestion to evaluate the effectiveness of state coastal zone management programs and their level of achievement in meeting the objectives of the CZMA. We expect that such a review might find several programs simply do not meet CZMA's national objective of "priority consideration for coastal dependent uses and energy facility siting."

We recommend that you consider addition of language requiring NOAA to consult with ocean and coastal stakeholders, including the oil and gas exploration, marine transportation and other commercial users of coastal and marine resources, as it prepares such an evaluation.

- Similarly, we suggest that the Subcommittee emphasize economic development opportunities under the Act. The added pressures of population and infrastructure on the coastline are well documented. Given this fact, it seems the Act should emphasize sound coastal multiple-use development. This might be best accomplished through a better articulation of the Act's national multiple-use objectives.

- The Act offers a significant opportunity to base coastal management decisions on sound science. Too often, in our experience, CZMA decisions objecting to offshore oil and gas operations have been made absent equal attention to science, engineering capabilities and economics. The CZMA should be used to link both scientific expertise, technical practicability and coastal and ocean policy making. It is in our collective best interest to ensure that this link is made.

- During state CZMA reviews of oil and gas operations, the states are provided with a large flow of information, including environmental impact analyses al-

ready conducted under NEPA and the OCSLA, and other necessary information. Working with the Federal permitting authorities, the states are also given opportunities for direct and detailed comment and consultation during the development of this information under the OCSLA process. In addition, the oil and gas business and the states currently communicate on an ongoing basis with respect to aspects of the operations and the regulating policies of the coastal zone management plan.

This information gathering and dissemination process is an open, exhaustive, complete and costly process. We believe it should not be expanded as it would result in redundancies and further delays in the CZMA review process and no additional understanding of the environmental impacts would be gained.

Mr. Chairman, the members of NOIA and API appreciate this opportunity to comment on the Coastal Zone Management Act and look forward to working with you and the members of the Subcommittee as you prepare legislation to reauthorize the CZMA.

Thank you.

RESPONSE TO QUESTIONS FROM REP. ENI F. H. FALEMAVAEGA

The reauthorized Coastal Zone Management Act introduced changes to the structure of the grant program, incorporating Resource Management Improvement Grants and Coastal Zone Enhancement Grants into one section, Coastal Community Conservation Grants.

Question

- Does the Administration support this change? Why or why not?
- What do you see as the drawbacks and benefits to this structural change? Do you think it will result in more money going into on-the-ground, outcome-based projects.

Answer:

NOAA's Office of Coastal Resource Management (OCRM) met with Committee staff on March 3, 1999, to discuss the latest draft of the bill which now differs from the version for which you requested comments. NOAA's views on both versions follow.

The **initial draft bill** combined Resource Management Improvement Grants and Coastal Zone Enhancement Grants into one section, titled Community Conservation Grants. This combination of two very distinct program purposes could have posed problems for some state, territorial and commonwealth Coastal Zone Management (CZM) programs by forcing them to select between the immediate need to support high priority community projects versus long term program improvements.

The **revised draft** bill reviewed on March 3rd no longer combines these sections. It establishes separate authorizations for core Coastal Zone Management Program Administration Grants (section 306), Coastal Zone Enhancement Grants (section 309), and Coastal Community Conservation Grants (arevised section 306A). These revisions continue to provide CZM Programs with the ability to address all of these significant issues including funding for addressing the type of on-the-ground, outcome-based projects NOAA is seeking through the Lands Legacy Initiative.

NOAA believes that Section 310, Providing for Community-Based Solutions for Growth Management and Resource Protection, is the appropriate place to accomplish the Coastal Community Conservation Grants instead of the revised Section 306A. Our goal is to encourage states to participate in coastal community conservation. By requiring a match as set out in the committees Section 306A, we are concerned that states will have difficulty participating. We have already witnessed the problems States encounter in raising funds to participate in the current Section 306 basic grants program. For that reason we urge the Committee not to require a match for the Community Project planning and include it in Section 310.

The newly required section 309 match, however, may pose a problem for some CZM Programs and discourage experimentation in program improvement. Overall, the March 3 draft appears to meet many of the objectives important to NOAA.

LETTER TO MR. GARCIA FROM MR. YOUNG

Dear Mr. Garcia:

Thank you for your testimony at the hearing on the Coastal Zone Management Act on Thursday, February 25. I have some additional questions regarding the Act's reauthorization. Please submit your written answers by March 12, so that they may

be included in the record and also considered when the reauthorization bill comes before the full Committee on Resources.

During the hearing, the final panel of witnesses agreed that the Coastal Zone Management Act has been successful in creating Federal-state partnerships that work fairly well. The reauthorization bill that will be introduced changes the structure of the grant program, incorporating Resource Management Improvement Grants and Coastal Zone Enhancement Grants into one section, Coastal Community Conservation Grants. The proposed grant system requires matching funds and must be implemented in conjunction with a "qualified local entity."

- Does the Administration support this change? Why or why not?
- What do you see as the drawbacks and benefits to this structural change? Do you think it will result in more money going into on-the-ground, outcome-based projects?

Thank you for your prompt response.

Sincerely,

Eni Faleomavaega

RESPONSE TO QUESTIONS FROM MR. FALEOMAVAEGA FROM MARC J. HERSHMAN

Dear Mr. Faleomavaega:

This letter responds to your questions about the proposal to combine the enhancement grants (old 309) and resource improvement grants (306a) portions of the CZMA into one section dealing with Coastal Community Conservation Grants. The intent appears to be to push more funds down to the local level for "bricks and mortar" projects or for specific policy or planning initiatives.

I am concerned that many of the problems identified in Sec. 4 (b) of the discussion draft (CZMA99.004) require a statewide perspective and approach. The structure of the grants would emphasize local entities to the exclusion, or diminishing, of the state's role. I assume that states are not precluded from participating in any of these grants but if the Act were to emphasize the use of "qualified local entities" for implementation then it would likely result in a competitive grants program with insufficient state oversight and ad hoc implementation.

For example, the eligible projects for which this money can be spent include shellfish production, access to coastal waters, protection of estuaries, reefs and SAV, effects of SLR, marine debris, plans for cumulative impacts, plans for ocean resources, plans for key energy and government facilities, and aquaculture. In many states these issues must be addressed from a state perspective because the resources are controlled by state agencies, the effects and impacts are of concern beyond the boundaries of a local government, and there is local competition to include or exclude the uses. In each case the state is needed to provide a more objective process of decision, or to propose solutions that are statewide in application and can benefit many local entities.

I believe it would be very helpful to re-invest in the old 306a process and to give local governments a pot of funds for special "brick and mortar" projects. But linking that mechanism with the broader goals of the enhancement grants program seems to mix two different program objectives.

If there is a strong interest in getting more "on-the-ground" projects at the local level then I would suggest revisiting the enhancement objectives and writing them in a way that makes it clear what type of specific locally based projects would advance those objectives. A good example that you now have is "providing clutch material" which can enhance shellfish production.

Thank you for the opportunity to comment.

Sincerely,

Marc J. Hershman

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Committee on Resources
 Washington, DC 20515

February 22, 1999

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MEMORANDUM

TO: Members, Subcommittee on Fisheries Conservation, Wildlife and Oceans

FROM: Subcommittee Majority Staff

SUBJECT: Oversight hearing on Coastal Zone Management Act

The Subcommittee on Fisheries Conservation, Wildlife and Oceans is scheduled to meet on Thursday, February 25, 1999 at 10:00 a.m. in room 1334 Longworth HOB to hold an oversight hearing on the Coastal Zone Management Act. Those invited to testify include: The Honorable Porter J. Goss, Representative of the 14th District of Florida; Mr. Terry D. Garcia, Assistant Secretary of Commerce for Oceans and Atmosphere, Department of Commerce; Ms. Jaqueline Savitz, Executive Director, Coast Alliance; John Donaldson, Personal Watercraft Industry Association; Mr. Thomas Fote, New Jersey Coast Anglers Association; Mr. Robert C. Shinn, Jr., Commissioner, Department of Environmental Protection; Dr. Marc J. Hershman, Director and Professor School of Marine Affairs, University of Washington; Ms. Sarah W. Cooksey, President, Coastal States Organization; and Mr. Gary D. Lytton, President, National Estuarine Research Reserve Association.

A briefing paper and witness list is attached. If you have any questions, please contact John Rayfield or Jeff Ripp at x60200.

BACKGROUND

Over sixty percent of all Americans live within 50 miles of the Atlantic and Pacific Oceans, the Gulf of Mexico, and the five Great Lakes. The population density of these areas is four times the national average, and coastal population is expected to grow by 15 percent during the next two decades. With this rise in population, there has been an increase in the competing uses of coastal resources.

In 1972, Congress enacted the Coastal Zone Management Act (CZMA). CZMA provides grants to states that develop and implement Federally approved coastal zone management plans. It also allows states with approved plans the right to review Federal actions to ensure they are consistent with those plans, and it authorizes the National Estuarine Research Reserve System.

The CZMA requires that approved state management programs include the following: (1) the boundaries of the coastal zone affected by the program; (2) an inventory and designation of areas of particular concern in the coastal zone; (3) a definition of permitted land and water uses that directly impact coastal waters; (4) an identification of how those uses will be controlled; (5) an outline of broad guidelines to determine priority of uses in coastal areas; (6) a description of the administrative structure that will operate the approved management program; (7) a definition of "beach" and a planning process for dealing with access to public coastal areas; (8) a planning process for energy facilities likely to be located in or significantly affect the coastal zone; and (9) a planning process for studying both the effects of coastal erosion and alternative ways to control it. Section 6217 of the Budget Enforcement Act of 1990 also requires states to include nonpoint source management plans as a part of their state plan. The Transportation and Infrastructure Committee has primary jurisdiction over Section 6217, and that program will not be covered as part of this hearing.

By the end of this Fiscal Year, 34 of the 35 eligible coastal states and territories will have Federally approved plans. The approved plans include more than 100,000 miles of coastline, which represent nearly all of the national total. The Coastal Zone Management Act was last reviewed in the 104th Congress, and authorizations for appropriations expire at the end of the current fiscal year.

Coastal Zone Management Grants

Each coastal state with an approved plan received Federal grants of between \$635,000 and \$2.795 million in Fiscal Year 1999. Three grant programs are authorized under CZMA. Section 306 grants are used to operate the states coastal zone management program. Coastal states making satisfactory progress implementing their plans are also eligible for Section 306A, Resource Management Improvement Grants. These grants are designed to help states preserve or restore coastal areas, redevelop urban waterfronts and ports, and provide access to public beaches and coastal waters. Both 306 and 306A grants must also be matched by the state. The amount of these grants is determined by the state's coastal population and shoreline mileage.

Participating states may also compete for Coastal Zone Enhancement Grants. These additional Federal funds can be used to strengthen the state programs in one or more of the following areas:

- wetland protection and restoration;
- increased public access to coastal areas;
- control of development impacts;
- protection from coastal hazards;
- special area management planning;
- management of ocean resources; and
- reduction of marine debris along the coast.

These grants are awarded by the National Oceanic and Atmospheric Administration (NOAA) based on a review of the state programs. No match is required for these grants.

State grants were funded at \$54.7 million in Fiscal Year 1999. Of that amount \$10 million was used for Section 309 grants. The Administration has requested \$55.7 million for state grants in Fiscal Year 2000. As part of its Land Legacy Initiative, the Administration has requested \$28 million in technical assistance to help states implement their coastal zone management plans.

Consistency

CZMA gives states with approved plans the right to review Federal activities (including activities that require Federal permits) to determine whether they are consistent with the policies of the state's coastal zone management program. If the Federal action is not consistent to "the maximum extent practicable" with the state program, changes must be made before the Federal activity is permitted. For Federal agency actions, the final determination of whether a Federal action is consistent with a state plan lies with the Secretary of Commerce.

Any person who submits a plan to the Secretary of the Interior for exploration, development, or production of oil or natural gas from leased areas on the Outer Continental Shelf must certify that the plan complies with applicable state coastal zone management plans. That certification, the plan and "any other necessary data and information" must be provided to the state. The state then has 90 days to concur, or disagree with the consistency finding or seek additional time for review. Congressman Goss has introduced legislation, H.R. 720, to require that the state be provided with the Environmental Impact Statement on the plan before the state review period begins. He will testify in support of this bill at the hearing.

National Estuarine Research Reserve System

Furthermore, the Coastal Zone Management Act authorizes the National Estuarine Research Reserve System (NERRS). Under the CZMA, the Secretary of Commerce can make grants, not to exceed 50 percent of the cost of the project, which enable coastal states to acquire, develop, and operate estuarine research reserves. Designation of an estuarine reserve requires a state to agree to long-term management of the site for research purposes, and to provide information for use by coastal zone managers.

Since the NERRS program began in 1972, it has grown from a single 4,400-acre site in Oregon to a 25-site system managing over one million acres in 19 states and Puerto Rico. More than half the System is made up of two reserves; Apalachicola in Florida and Katchemak Bay in Alaska. Most of the land in the system is not owned by reserves, instead the majority of the land included in research reserves is held for conservation purposes by other agencies.

Reserve operations are funded at \$4.3 million in Fiscal Year 1999, and \$7.3 million was provided for construction and land acquisition. The Administration has requested \$7 million for operations and \$12 million for construction in Fiscal Year 2000.

Coastal Zone Management Effectiveness

In December, 1997, the Department of Commerce Inspector General concluded that "only anecdotal evidence" can be cited "to demonstrate the accomplishments of the CZM program" and that "states have been unable to measure or evaluate 'on the ground' outcomes of the CZM program because the data necessary to make these decisions has not been collected." The Inspector General recommended that NOAA "develop a strategy to measure the effectiveness of the CZM program".

As a result of that recommendation, NOAA commissioned a comprehensive study of the effectiveness of the program. The complete study will be published later this spring. Its primary researcher, Dr. Marc Hershman, has provided a copy of the paper to the Subcommittee and will testify about its conclusions at the hearing.

The researchers did conclude that state CZM programs were effective in implementing limited number of CZMA objectives they reviewed. However, they reached this conclusion based primarily on assessments of policies, processes and tools rather than actual outcome data. The researchers state "there are insufficient data for systematic, outcome based performance evaluation of state CZM programs, largely because of the lack of a common set of outcome indicators that would link state management activities and decisions to national CZMA objectives." They recommend the development of such indicators and that Congress "initiate a national outcome monitoring and performance system". Legislation is being prepared by the Subcommittee Chairman based on this recommendation. It is discussed below.

Personal Watercraft

Many states and localities have begun restricting personal watercraft (PWC). PWCs are a relatively new segment of the boating community, but their use is growing. Currently, PWC sales are the fastest growing segment of the boating industry, amounting to almost 200,000 units per year. This large increase in PWC use has lead other resource user groups; including fishermen, bird watchers and boaters, to seek the regulation of PWCs in many areas. Regulations against PWCs have been implemented in several coastal states including Hawaii, Florida, Washington and California. The regulation of PWCs is not exclusively a coastal issue; in 1998 the National Park Service began working on regulations that would limit PWCs in national parks and states, such as Wisconsin, have limited their use on inland lakes.

The regulation of PWCs has three major aspects; environmental impacts, boater safety and user conflicts. Boater safety is the domain of State marine law enforcement agencies and the Coast Guard, and this aspect is not discussed here. User conflicts arise in areas where PWCs are introduced into waters traditionally used by other groups. The environmental impacts of PWCs are being studied, and regulators and user groups are concerned for a number of reasons. Although none of the impacts are exclusive to PWCs, their increasing use has either created or exacerbated problems in many locations. The environmental impacts of PWCs are often cited as the following:

- 1) Wildlife Disturbance: PWCs have performance capabilities (low draft, high maneuverability) not present in larger boats that allow them to enter sensitive areas not accessible to larger motorized boats. Once there, they disturb nesting birds and wildlife. Some studies indicate that when startled by PWCs, nesting birds have trampled their eggs, seals have abandoned their pups, manatees have been run over, and other marine mammals have avoided certain areas.
- 2) Destruction of Aquatic Vegetation: Again, because PWCs are able to enter shallow water, they have the ability to uproot aquatic plants and disturb kelp beds.
- 3) Increased Erosion: PWC users typically spend longer periods of time in an area than traditional boats and can generate significant wave action. Increased and continuous wave action contributes to shoreline erosion.
- 4) Pollution: Powered by two-stroke engines, PWCs burn oil and gas in a mixture. According to one claim, as much as one-third of the fuel is discharged into the waterway unburned, resulting in as much as 1.25 gallons per hour of use. However, the engines in PWCs are no worse than those on other recreational craft.

Despite these concerns, sales of PWCs continues to rise and more governments are beginning to take action to limit or ban their use. Efforts to regulate personal watercraft include:

- The Florida Keys National Marine Sanctuary Advisory Committee expressed concern about PWCs in the sanctuary EIS and management plan through notice-and-comment rule making. NOAA addressed the issue of PWCs by restricting a number of boating activities, but not specifically singling out jet skis. The regulations prohibit “reckless operation of all watercraft” [s. 922.163(a)(v)] and require no-wake speed in marked channels and other designated areas of concern [s. 922.163(a)(5)(iii)]. The regulations outlaw operating a vessel in such a way as to “take or injure wading, roosting or nesting birds or marine mammals”. The industry agreed to self-enforcement in order to work on changing user behavior through education. NOAA reserved the right to enforce broad zones of PWC bans if the industry's efforts were not successful in reducing or eliminating nuisance, safety and resource protection problems. The final rule was printed in the June 12, 1997 Federal Register. No further actions have been taken to limit PWCs in the Florida Keys.
- The State of Washington Supreme Court upheld a San Juan County ordinance banning PWCs in almost all County waters. The County enacted the ban for both safety and environmental reasons. The Court found that the law was Constitutional, was a legitimate expression of the police power, did not conflict with State laws requiring PWC owners to register their vehicles, does not violate the public trust doctrine, and finally, is not “unduly oppressive”. The Court found that it is possible to distinguish between PWCs and other vessels, and that banning them was a prudent policy in light of the Board's concerns, which were enumerated in the ordinance.
- The final regulations for the Monterey Bay National Marine Sanctuary limited the operation of PWCs or “thrill craft” to four designated zones, with access routes. The US Court of Appeals in Washington, D.C. upheld those regulations.
- The National Estuarine Research Reserve program is looking at regulating PWCs in the reserves. NERRS believes that a scientific management approach should be taken towards regulation, which requires research before regulation. Plans are underway to conduct research on the effects of all types of recreation craft, including PWCs, at the Rookery Bay reserve in Florida in three stages. Stage 1 is the effect of watercraft on waterbird disturbance. Stage 2 is the effect of watercraft on submerged resources including; turbidity and detailed assessments of sea grass distribution and habitat diversity. Stage 3 is the human dimension, particularly user conflicts.

The Subcommittee is preparing legislation to encourage states to address the impacts of personal watercraft on the marine environment through state coastal zone management plans. That legislation is described below.

Draft Legislation

The Subcommittee has provided the witnesses with draft reauthorization legislation on which to comment. A section-by-section explanation follows:

Section 1. Short Title. "The Coast and Ocean Act of 1999".

Section 2. Inclusion in state management programs of restrictions on certain vessel operations. Under this section, state coastal management plans would have to include policies that prohibit the operation of PWC

- 1) in areas 12 inches or less where submerged aquatic vegetation is located, and
- 2) in excess of no-wake speed in areas where normal operation would impact living marine resources or birds.

Current law does not require that state plans include the regulate PWC.

Section 3. Coastal Zone Management Fund. The coastal zone management fund contains loan repayments from the long defunct Coastal Energy Impact Assistance Loan Program. Current law allows the fund to be used for program administration and several other items. Because the balance in the fund is declining rapidly as the loans are paid, appropriations legislation has restricted the use of the fund to program administration for the last several years. This legislation adopts that policy. In Fiscal Year 2000, amounts in the fund will not be sufficient to fully pay for program administration. Therefore, additional funds are also authorized under Section 5.

Section 4. Coastal Community Conservation Grants. The Administration proposes funding technical assistance to help communities promote better coastal management. This section promotes greater community involvement in coastal management, but through a matching grant program instead of technical assistance. This program combines the existing Resource Management and Enhance grant programs into a single new Coastal Community Conservation Grant program. These grants could be used for on-ground projects, or to improve state programs. The grants must be matched, and must be carried out in conjunction with a local government, regional, or interstate entity.

Section 5. Authorization of Appropriations. The legislation authorizes \$60,000,000 for the CZM grant programs in Fiscal Year 2000, \$7.3 million over Fiscal Year 1999 appropriations. After that it provides level funding for the states basic operation grants at \$40,000,000 through Fiscal Year 2004. It provides authorizations for the Coastal Community Conservation Grant program that start at \$20,000,000 in Fiscal Year 2001 and rise to \$35,000,000 in Fiscal Year 2004. For the National Estuarine Research Reserve program authorizations begin at \$7,000,000 in Fiscal Year 2000, the Administration request, and rise to \$11,000,000 in Fiscal Year 2004. Program Administration is authorized at \$5,000,000 for each fiscal year through 2004.

Section 6. Technical Corrections. The section makes technical corrections.

Section 7. Coastal Zone Management Outcome Indicators. Within 2 years, the Secretary of Commerce must provide Congress with a report containing a common set of measurable outcome indicators to evaluate the effectiveness of coastal zone management programs. Within 4 years, the Secretary must submit draft legislation to authorize a national coastal zone management monitoring and performance evaluation system.

Issues

- 1) What are the impacts of personal watercraft operation on living marine resources and birds? How can those impacts best be mitigated?
- 2) How effective are state coastal zone management programs in meeting the Federal coastal zone management objectives set out in the Coastal Zone Management Act? What outcomes should be measured to determine program effectiveness? What mechanisms should be used to monitor and measure those outcomes?
- 3) Now that the state program development stage is complete, what can be done to promote plan implementation? How can the needs of coastal communities be better addressed?
- 4) The National Estuarine Research Reserve System has undergone explosive growth without a concurrent growth in funding? How many additional reserves are under consideration? What percentage of current reserve management plans are being implemented? What are the reserves construction needs?

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February 25, 1999

**SUBCOMMITTEE ON FISHERIES CONSERVATION,
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OVERSIGHT HEARING ON REAUTHORIZATION
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The Honorable Porter J. Goss, Representative of the 14th District of Florida

PANEL II

Mr. Terry D. Garcia, Assistant Secretary of Commerce for Oceans and Atmosphere,
Department of Commerce

PANEL III

Ms. Jaqueline Savitz, Executive Director, Coast Alliance

John Donaldson, Personal Watercraft Industry Association

Mr. Thomas Fote, New Jersey Coast Anglers Association

PANEL IV

Mr. Robert C. Shinn, Jr., Commissioner, Department of Environmental Protection

Dr. Marc J. Hershman, Director and Professor School of Marine Affairs,
University of Washington

Ms. Sarah W. Cooksey, President, Coastal States Organization

Mr. Gary D. Lytton, President, National Estuarine Research Reserve Association

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TESTIMONY OF
TERRY GARCIA
ASSISTANT SECRETARY FOR OCEANS AND ATMOSPHERE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
BEFORE THE SUBCOMMITTEE ON FISHERIES CONSERVATION,
WILDLIFE AND OCEANS
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

February 25, 1999

INTRODUCTION

Good morning, Mr. Chairman, and members of the Subcommittee. My name is Terry Garcia. I am the Assistant Secretary for Oceans and Atmosphere for the National Oceanic and Atmospheric Administration (NOAA). I thank you for this opportunity to testify today on the reauthorization of the Coastal Zone Management Act, or CZMA. The CZMA is a landmark resources management law that has benefitted the Nation, the States and the citizens of our country since its enactment in 1972. My testimony will focus on the President's Lands Legacy Initiative and the following four points raised in your letter to Dr. Baker:

- the clarity of the coastal management program's goals;
- the mechanisms that are in place to measure the effectiveness of the program in meeting those goals;
- the effectiveness of the program in meeting those goals;
- and
- ideas regarding the 1999 reauthorization of the CZMA.

The President's Land Legacy Initiative

The President recently announced a \$1 billion Lands Legacy Initiative to expand federal efforts to save America's natural treasures. The Lands legacy Initiative would provide \$105 million to NOAA to protect America's valuable ocean and coastal resources and to strengthen state and local efforts to address the problems caused by sprawl.

America's ocean and coastal areas are under siege by a whole suite of activities, including coastal population growth, development, maritime commerce, commercial and recreational fishing, and tourism. The economic and environmental well-being we derive from the essential natural resources and beauty provided by these areas is being undermined by the economic and aesthetic uses that make these diverse areas valuable to the Nation. Escalating losses and degradation of coastal wetlands, fisheries habitat, and coral reef ecosystems must be reversed.

The Lands Legacy Initiative will target funds to strengthen and expand protection of the nation's most significant ocean and coastal areas; restore critical coastal habitat and vibrant coral reef ecosystems; and provide states and local governments with the tools and resources for environmentally-sound smart growth strategies. This includes \$32 million for Partnerships to

Promote Community Based Smart Growth; \$15 million for the enhancement of our National Marine Sanctuaries; \$14.7 million to enhance the protection of critical estuaries through the National Estuarine Research Reserve System; \$10 million to determine ways to use dredged material in environmentally-sound beneficial ways; \$10 million to help restore fragile coral reefs injured by human impacts; and \$22.7 million to increase the number and geographical scope of community-based fish habitat restoration efforts.

The Lands Legacy Initiative provides us with a unique opportunity to ensure that our coastal and ocean areas are used, conserved and protected for the benefit of present and future generations.

The Clarity Of The Coastal Management Program's Goals.

The CZMA's goals and objectives, as provided for in the Act's findings and policy statements, are clear and reflect current coastal and estuarine management issues and needs. These objectives describe the importance to the nation of the coastal zone for its variety of natural, commercial, recreational, ecological, industrial and aesthetic resources; and the need to preserve, protect, develop and restore or enhance these resources for this and succeeding generations. The CZMA defines and authorizes the Coastal Zone Management Program and the National

Estuarine Research Reserve System. It emphasizes a partnership with the states. It is a critical national authority that works with all sectors of government to comprehensively manage and address the many and increasing pressures on the use of our coastal areas and our coastal and ocean environments.

The coastal management program is implemented by state coastal management programs and National Estuarine Research Reserves, in partnership with the federal government. Participation is voluntary and eligible states may develop coastal management programs or reserves pursuant to federal requirements. As part of federal approval, state coastal management programs and reserves receive annual operating funds through cooperative agreements with NOAA. These funds are used by state agencies and local governments for a variety of management, research, permitting, enforcement, education and project specific activities. In addition, federal approval of a state coastal management program triggers the CZMA federal consistency requirement. Federal consistency requires that certain actions, in or outside the coastal zone, that affect any coastal use or resource must be consistent with the enforceable policies of state coastal management programs. The federal consistency requirement is a powerful tool that states use to address effects on coastal uses or resources that are the result

of federal actions.

For over twenty-five years the CZMA has provided national goals, priorities and guidance for how states and the Federal Government manage the Nation's coastal and ocean resources. States have made great strides implementing federally approved management programs which reduce threats to coastal wetlands, improve coastal water quality, expand public access to the coast, revitalize urban waterfronts and educate the public about the need to manage and protect coastal and ocean resources.

While the goals of the CZMA are clear, much remains to be done. Implementation of the CZMA's goals by state coastal management programs, estuarine research reserves, and NOAA requires ongoing vigilance, effort and resources to meet increasing pressures on coastal and ocean resources. Stresses on coastal and ocean resources are increasing dramatically, and so are the resulting management challenges. For example, from 1996-2015, the coastal population is projected to increase from 141 million to 161 million with the accompanying increases in solid waste production, urban runoff, losses of green space and wildlife habitat, water quality declines, and other stresses on the coastal and marine environment. These challenges include continued rapid population growth in coastal areas at much higher

rates than inland, loss and degradation of habitats and biodiversity, water quality problems, continued user conflicts, and increased separation of coastal residents from natural resources. This is why the reauthorization of the CZMA in 1999 is so important to NOAA, the coastal states and to the nation.

The Mechanisms That Are In Place To Judge The Effectiveness Of
The Program In Meeting Its Goals.

There are mechanisms in place to judge the effectiveness of the implementation of the CZMA. These include both statutory and administrative mechanisms. Statutory mechanisms include (1) program oversight by NOAA, (2) required program evaluations under section 312 of the CZMA, and (3) the submission and federal approval of program changes.

(1) The CZMA requires that NOAA provide on-going oversight of state coastal management programs and estuarine research reserves. Such ongoing interaction provides NOAA and the states with opportunities to assess the effectiveness of management activities on a regular basis and work together to revise annual work plans and specific projects and activities as needed.

(2) The periodic section 312 program evaluations provide a more extensive and systematic mechanism to assess the

effectiveness of the state programs. Through the section 312 process, NOAA, every three years, conducts an intensive investigation of state coastal management and estuarine research reserve programs to ensure that states are adequately implementing their approved programs. These reviews include substantial input from other federal agencies and the public. NOAA's findings identify program accomplishments, any deficiencies and emerging issues. While NOAA has found that states are adequately implementing their management programs, the findings often include necessary actions to address program deficiencies or emerging issues, which the state programs are required to address in the next annual work plan and cooperative agreement. These evaluations have documented the effectiveness of the programs and have helped ensure the vitality of the programs. For example, one evaluation found that the implementation of Mississippi's wetland permit program was inadequate. As a result, the state re-allocated funds to improve monitoring and enforcement, which enhanced the state's ability to continue to meet the CZMA's national objectives to protect wetlands.

(3) While not as direct a method for determining effectiveness as program oversight or section 312 evaluations, the effectiveness of state programs is also evaluated through the CZMA's program change requirement. State coastal management

programs are required to submit changes to their programs to NOAA for federal approval. The need to make program changes is determined through NOAA's program oversight role, the section 312 evaluations, or, in most cases, by a state's own determination.

NOAA has also recently begun to more efficiently administer and evaluate the program. The Coastal and Marine Management Program (CAMMP) information system is a data collection and retrieval program that is designed to allow states to submit grants and other program information electronically. NOAA, the coastal states, reserves, local governments, other federal agencies, academic institutions, think tanks, and other interested parties, will be able to compile, manipulate and report on coastal management activities. The CAMMP system is a high priority for NOAA and the first phase of the system was implemented this month. The Grant Application and Reporting Section of the CAMMP system will allow state coastal management programs and estuarine reserves to prepare annual grant applications via the Internet, and, over the next few years, to conduct the entire grant application process over the Internet.

In addition to these mechanisms, NOAA funded an Effectiveness Study. This study is an intensive and comprehensive analysis of the effectiveness of state programs and

was begun in 1995 by several academic institutions and consultants across the country. Draft results have been submitted within the last few months and the results are expected to be published later this year. The Study found that state programs are effective in addressing key CZMA objectives. However, to better determine effectiveness in the future, the Study recommends that there be a more systematic and sustained collection of outcome information. This is precisely what the CAMMP system will allow NOAA to do: assess, quantify and report on the effectiveness of state programs.

The Effectiveness Study found that most states are effective or very effective in protecting estuaries and coastal wetlands, that state programs have progressively upgraded their management tools to improve how they deal with impacts to beaches and dunes, that state programs are national leaders in improving access to the coast, that state programs have been instrumental in waterfront revitalization leveraging over \$430 million in non-CZMA funds, and that a substantial number of states are effective in the development of large seaports.

The Effectiveness Of The Program In Meeting Its Goals.

The state and federal coastal management program is effective in many ways. This is evidenced by the near-unanimous

non-partisan support among Congress over the years, and the widespread support of state and local governments, interest groups and the public. The benefits of the CZMA and the support it fosters can be seen in the effectiveness of the national system of state coastal management programs, the growing network and use of estuarine research reserves, the vitality of our coastal economies, and the protection and sustainability of important coastal resources and habitats.

Some of the accomplishments include the following: The national system of coastal management programs is nearly complete with 95,142 miles, or 99.7 percent, of the 95,439 miles of the nation's shoreline under management by 32 federally-approved state, territorial, and commonwealth coastal programs. Twenty nine of these states have also received conditional approval of their coastal nonpoint pollution control programs. Demonstrating the growing state interest in this federal program, three new state coastal management programs, those of Ohio, Georgia, and Texas, have been approved by NOAA within the past three years. The nation's 33rd coastal management program, Minnesota's, only awaits final transmittal by the new Governor, before approval by NOAA. In addition, we anticipate receiving Indiana's draft program for review later this year. Of the nation's 35 coastal states and territories eligible for participation under the CZMA,

only Illinois is not currently participating.

The effectiveness of the CZMA's goals is also seen in the growth and importance of the National Estuarine Research Reserve System. Reserves are protected land and water areas in 19 states and territories that are part of a national system administered by NOAA. The states operate the individual reserves, participate in developing goals for the System, and implement System-wide activities. Reserves protect representative examples of estuarine habitat and conduct a suite of activities that improve the stewardship of estuaries, including: long-term research, system-wide water quality monitoring, technical training for coastal decision makers, public education and interpretation programs, and demonstration projects. Reserves are important for habitat protection since they manage discrete protected lands and waters and help forge community-based solutions to estuarine environmental problems, such as voluntary changes to farming practices, development of new septic tank standards, or restoration of wetlands.

There are 23 federally designated National Estuarine Research Reserves in nineteen states and territories, including the Jacques Cousteau reserve designated in New Jersey just last year and the Kachemak Bay (Alaska) reserve designated this month.

Four additional reserves are in development in Grand Bay (Mississippi), Guanama-Tolomato-Matanzas (GTM) (Florida), San Francisco Bay (California), and in the St. Lawrence River in upstate New York. The Grand Bay and GTM reserves are on schedule to be designated by NOAA in the Summer of 1999. Over 900,000 acres of estuarine habitat are now protected by the National Estuarine Research Reserve System. Habitat protected by the System will increase this year to over 1,000,000 acres with additional acquisitions by existing reserves, and with the designation of the Mississippi and Florida reserves. Visitors to reserves now number over 1 million per year.

The reserve system has initiated a unique system-wide monitoring program for water quality and weather parameters that can link short-term events to habitat changes. Reserves also are helping local decision makers and professionals in coastal areas apply new and innovative methods and technologies. In response to the Administration's Clean Water Action Plan, Reserves are joining their efforts with EPA's National Estuary Programs to share more broadly lessons learned with coastal programs and communities. In addition, the CZM programs are working to further enhance their links with NEPs and to work together in providing support to local coastal communities to address impacts and pressures on estuary resources.

The Biennial Report that NOAA sends to Congress documents the effectiveness of these programs. This report should be delivered to Congress shortly. The report, as required by the Act, is a comprehensive account of the accomplishments of NOAA, the coastal states and reserves, in advancing the goals of the CZMA during the fiscal years 1996 and 1997. Before I move on to specific reauthorization recommendations, let me highlight for you some specific CZMA and Reserve success stories.

In San Francisco Bay, the San Francisco Bay Conservation and Development Commission, a federally approved CZMA program, has reversed wetland loss from 2,300 acres per year to only 4 acres per year. This effort has been aided by the efforts of the California's Department of Fish and Game, and other Federal agencies including the Department of Interior's Fish and Wildlife Service, the Environmental Protection Agency, and the Army Corps of Engineer.

Under section 306A of the CZMA, the Coastal Resource Improvement Program, states have used federal and state funds to provide substantial public access to the coast through coastal parks, fishing piers, boat launches, dune walkovers, foot and bike trails, beach clean-ups, parking lots and access roads, land acquisition, historic structure restoration, urban waterfront

revitalization and other projects. Rough estimates show that state have used over \$50 million in federal funds, equally matched with state and local funds, since 1985 for over 1,000 access and resource protection projects.

State coastal management programs have provided support to numerous coastal communities for environmentally-sound waterfront revitalization. Virginia has used limited CZMA funds to spur development of an eco-industrial park in Cape Charles, Virginia. The City of Wilmington, North Carolina used CZMA funds to develop a riverfront plan that served as a catalyst for \$4 million in public investment and \$100 million in private investment along the Cape Fear River. This project restored dilapidated warehouses and piers, created vessel and public access to the City's waterfront, and turned the waterfront into a vibrant economic and social center for the City.

These are just a few of the examples of the effectiveness of the CZMA program. The Biennial Report will provide additional examples.

Ideas Regarding The 1999 Reauthorization Of The CZMA.

Turning now to the 1999 reauthorization of the CZMA, NOAA fully supports the CZMA and is committed to working with

Congress, the coastal states, and other interests, to continue the Act's national programs. The Congress and the Administration have an opportunity to position the CZMA to meet the requirements of the next century, while maintaining the aspects of the CZMA that have served the country well for over a quarter of a century. These include the flexibility of the state-federal partnership, using state programs as the "on the ground" delivery mechanism, and consideration of the national interest in coastal uses and resources.

NOAA suggests that Congress consider the following concepts to address these issues and challenges:

- address emerging habitat issues, such as protection of coral reefs, protection of essential fish habitat, and habitat restoration;
- focus the implementation phase of the coastal nonpoint pollution control program within the CZMA on NOAA's traditional habitat protection and restoration mission, and specify state coastal management program agencies' responsibilities in the management of polluted runoff;
- provide support to local coastal communities to develop environmentally protective solutions to the impacts and pressures on coastal uses and resources by encouraging revitalization of previously developed areas;

- improve coastal management decision-making by strengthening the ability of coastal states and NOAA to provide technical assistance, management-oriented research, innovative technology development and mediation services;
- enhance the link between the estuarine reserves and coastal management programs; and
- make other technical amendments to improve the effectiveness, efficiency and flexibility of the CZMA's state-federal partnership.

Conclusion

In closing, the 1999 reauthorization of the CZMA provides a unique opportunity to provide a vision and a framework for coastal and ocean resources management and stewardship into the 21st century. The effectiveness of the CZMA and the broad-based support for the Act can enable the Administration and the Congress to accomplish the Act's objectives. A reauthorized and enhanced Act, with adequate funding authorized and appropriated, will set in motion the means by which we can ensure that the Nation's coastal and ocean uses and resources are used, conserved and protected for the benefit of present and future generations. The Administration looks forward to working with you on this task. That concludes my remarks and I would be glad to answer any questions.

**WRITTEN TESTIMONY OF JACQUELINE SAVITZ,
EXECUTIVE DIRECTOR, COAST ALLIANCE**

**BEFORE THE SUBCOMMITTEE ON FISHERIES
CONSERVATION, WILDLIFE AND OCEANS**

UNITED STATES HOUSE OF REPRESENTATIVES

**REGARDING REAUTHORIZATION OF THE
COASTAL ZONE MANAGEMENT ACT**

FEBRUARY 25, 1999

ON BEHALF OF THE FOLLOWING ORGANIZATIONS:

American Oceans Campaign, DC and California

Center for Marine Conservation, DC and California

Clean Ocean Action, New Jersey

Coast Alliance, Washington DC

Gulf Restoration Network, Louisiana

Natural Resources Defense Council, New York, DC, California

Northwest Environmental Advocates, Oregon

Ocean Advocates, Maryland

Save Our Shores, California

Sierra Club National Marine Wildlife and Habitat Committee

Sierra Club, Midwest Office, Wisconsin

Introduction

The Coast Alliance welcomes the opportunity to submit testimony to this Subcommittee on the reauthorization of the Coastal Zone Management Act. The Alliance leads a network of over 400 organizations along all four United States coasts, including the Great Lakes. Together we work to protect this nation's priceless coastal resources.

Coast Alliance has a long history of work to support the Coastal Zone Management Act and has been very active in its reauthorizations. We look forward to working with this Subcommittee to reauthorize the Act again.

Since the Act was originally passed in 1972, there has been little respite from human impacts in coastal areas. The latest population estimates suggest that by 2015, the coasts will be home to nearly 25 million more people. Where will our already crowded coasts put these 25 million people? What impact will these new residents have? What will be left of our precious marshes, beaches and woodlands? How will our coastal bays, lakes and estuaries fare?

The answers, and our greatest hope for the coasts, lie in a carefully crafted and well-defined Coastal Zone Management Act. Coast Alliance believes strongly that the Coastal Zone Management Act has been a very important program, providing much needed attention to coastal issues, and ensuring interagency coordination and comprehensive solutions. Through reauthorization we can give it a chance to be effectively implemented.

As Congress embarks on this important task, the Coast Alliance and its affiliated organizations believe that in order to achieve its goals, the Act must reflect the following principles:

- 1) Since polluted runoff is the number one cause of water quality impairment, threatening coastal economies, and aquatic resources and habitats, the Coastal Nonpoint Pollution Control Program in its current form must be integrated into the Act, and sufficient funds must be authorized for its support.
- 2) The Program's penalty provisions and its requirements for enforceable mechanisms must be maintained and the Program must be funded if the Act is to achieve its goals.
- 3) Any new projects or grant programs supported through appropriations under this act must be environmentally protective, maintaining the natural biological, chemical and physical integrity of coastal ecosystems. While the impacts of some projects such as beach renourishment, dredging and shoreline stabilization may be a subject of debate, there are certainly many sources of funding available for such programs. Therefore, the financial resources made available through the Coastal Zone Management Act should focus on projects that provide agreed-upon benefits to coastal resources, and not those with definite or potential ecological risks.

Background

Population growth on the coasts simultaneously barrages the area with additional sources of pollution and robs the coast of its resilience or its ability to withstand stress. Marshes, forests, and grasslands, for example, are replaced with impervious surfaces that cause polluted water to speedily rush to near-shore habitats. The result is not just a degraded habitat, but in many cases the loss of fisheries and other coastal resources worth billions to the economy. Such impacts should be minimized, not facilitated, by a new Coastal Zone Management Act.

The extensive benefits of these ecosystems have consistently been under-appreciated since today's cost-benefit studies are not equipped to measure the intrinsic values of wetlands, rivers or the ocean. Where they are considered, generally only those goods that can actually be bought or sold are included in the equation. Besides the obvious market-based values such as fisheries and transportation, coastal ecosystems quietly provide us with more varied life-supporting services. These ecological services, such as the roles a forest plays in producing oxygen, or preventing runoff, are almost never considered in cost-benefit analysis. Careful consideration of the values of these ecological services provided by coastal resources can help understand and demonstrate the need for conservation.

Economists estimate that the global ecosystem provides \$33 trillion each year in services to humankind. The coasts, which include oceans, estuaries, the continental shelf, lakes, rivers, seagrass beds, wetlands, and coral reefs were valued around \$27 trillion, making up 80 percent of the total value of the earth's ecosystem services.

Coastal ecosystems prevent runoff, support fisheries, and regulate the gases in the atmosphere that maintain global temperature, shield us from harmful solar radiation, and allow us to breathe. Ecosystem services also include purification of water, mitigation of floods and drought, pollination, pest control and generation of fertile soils (Nature 1998). There are also the obvious benefits: recreation, cultural opportunities, and the provision of resources like lumber, fuel and food (Costanza et al. 1997). All we need to do to realize these immense benefits is to protect the coasts, and the \$27 trillion figure provides a clear indication of the importance of doing so.

Development and pollution, the two greatest threats to the coasts, need to be addressed by the Coastal Zone Management Act. Whether the source is agricultural runoff, sloppy forestry practices or uncontrolled urban runoff, control over the continued onslaught from polluted runoff is long overdue. Besides contributing to the closure of nearly three million acres of the nation's shellfish beds, polluted runoff is also credited with degrading at least a third of surveyed rivers and streams, and causing a "Dead Zone" covering more than 6,000 square miles in the Gulf of Mexico. Polluted runoff also promoted the toxic *Pfiesteria* outbreaks on the Mid-Atlantic Coast, made bathers sick on beaches in California, and clogged important shipping channels in the Great Lakes and elsewhere. The most common source of pollution, runoff comes from thousands of diffuse sources, such as

farms, logging areas, new and existing developments, natural waters, marinas, septic systems, dams and other sources. Together they create a serious and ubiquitous water pollution problem.

However, compared to factories and sewage treatment plants, runoff pollution remains essentially unregulated.

In spite of the prevailing myth that the sources are too diffuse to address, the truth is that there are proven methods of controlling polluted runoff. Like point source pollution, polluted runoff can be managed and the time has come to level the playing field.

The Coastal Nonpoint Pollution Control Program can help us begin to solve these problems. This policy tool that Congress created can stop runoff from taking its toll on local waterways. Coast Alliance has been working closely with state and federal government agencies to ensure that the federal investment in this program is well spent. We also have worked hard to help ensure adequate funding for the program; however, to date the funding level does not reflect the need, or the degree to which runoff harms ecosystems.

As Congress embarks on its reauthorization process, we would like to draw your attention to this important problem. This week, Coast Alliance released a report entitled *Pointless Pollution: Preventing Polluted Runoff and Protecting America's Coasts*. The report compiles information on the states of the coasts with respect to polluted runoff problems and summarizes coastal states' efforts to address the problem through the Coastal Nonpoint Pollution Control Program. A summary of our findings follows.

The Need to Prevent and Control Polluted Runoff

America's coastal waters are a critical resource providing food, drinking water and recreational opportunities to all of its citizens. However, those are not all of the benefits. According to a recent economic analysis, coastal ecosystems such as wetlands, estuaries, and coral reefs provide us with billions of dollars worth of services such as air and water purification, flood prevention, and provision of habitat. When these ecosystems are destroyed by pollution or unmanaged development, we lose more than a pretty place. It costs us our air filtering system, flood control, natural water filters – losses we may never recoup – and this does not include marketable resources we extract from the coasts. Recognizing the need to ensure sustainable use of our fisheries and other coastal resources, Congress created the Coastal Zone Management Act.

Recent studies show that the Act holds promise (Hershman et al. 1999). Yet our coasts are increasingly subject to diverse sources of stress. As a result of the ever increasing population and pollution pressure, the coasts endure constant challenges such as harvesting forests and draining wetlands, which would otherwise contribute to coastal resilience. As our population grows, the coasts' allure may also be their detriment, and already the impacts are becoming clear.

Polluted runoff continues to rob coastal economies of billions of dollars that might otherwise be generated by tourism, fishing, and wildlife-watching. Coastal resources such as wetlands, oceans, and estuaries, are significant income generators and have tremendous ecological values. These coastal resources offer us many services that are lost as the resources diminish. Increasing populations will cost the coasts dearly unless runoff is prevented.

Coastal program managers agree. A recent evaluative study (Hershman 1999) found that one failure of the program according to its senior managers was that it has not adequately addressed water quality protection, watershed management, or nonpoint source pollution.

The Coastal Nonpoint Pollution Control Program, passed by Congress in 1990, was designed to address growing concerns about polluted runoff from sources as diverse as agriculture, forestry, development, roads, dams and marinas. The Program requires states to develop plans for managing these problems. To date, all coastal states with federally approved Coastal Zone Management Programs have done so. While plans are not yet finalized, much has been invested in their development. To ensure that the investment pays off, Congress must incorporate the Coastal Nonpoint Pollution Control Program into the Coastal Zone Management Act and provide the funding for its implementation.

As a result of the purely voluntary nature of other runoff control programs, little significant progress has been made in cleaning up polluted runoff into America's coastal waters over the past decade. The Coastal Nonpoint Pollution Control Program requires that, while plans may include voluntary programs, they also must have back-up measures that are mandatory and enforceable to be used if and when the voluntary programs do not work.

As a result, the Coastal Nonpoint Pollution Control Program offers a ray of hope in controlling and preventing polluted runoff. Failure to implement the Coastal Nonpoint Pollution Control Program will result in the costly degradation of America's most valuable ecosystems.

State of the Coasts

According to the Environmental Protection Agency (EPA), most, if not all of the estuaries in the National Estuary Program identify nutrient enrichment as a primary environmental problem (Wayland 1996). Nationally, only about six percent of the nitrogen comes from point sources (Wayland 1996). The remainder results from runoff, and other nonpoint sources. In many areas such as Chesapeake Bay, nearly two thirds of the load originates as traditional nonpoint sources: agriculture, forestry and development (Boesch 1996).

- Runoff Closes Shellfish Beds, Destroying a Livelihood

In 1995, 3.5 billion acres, or nearly one in every seven acres of classified shellfish beds were not approved for harvest due to poor water quality. The causes – failing septic systems, pollution by marinas and boating, agricultural runoff and feedlots – are precisely the sources that can and should be reduced by the Coastal Nonpoint Pollution Control Program.

According to data from the National Oceanic and Atmospheric Administration (NOAA), nonpoint source pollution was a cause of 85 percent of these shellfish bed closures overall¹. In 14 of the 21 coastal states included in the National Shellfish Register, more than 95 percent of the area closed to shellfishing was impaired by nonpoint sources. This includes eight states where 100 percent of the acres closed were attributed, at least in part, to polluted runoff.

- Runoff Leads to Low Oxygen Conditions, Threatening Fisheries

Scientists have shown that hypoxia caused by nutrients carried in runoff may affect fisheries resources by killing fish, reducing the habitat or food that is available, or by making them more susceptible to their predators, including humans (Rabalais et al. 1996).

While hypoxia is generally a temporary condition, long-term low oxygen trends have been observed in lakes and estuaries around the country. In places like the Gulf of Mexico, there is little respite from continuous loads of nutrients fed into the waterway from agriculture, urban runoff, wastewater treatment, air deposition, and other sources. Annual cycles occur, and in many areas summertime low oxygen levels are commonplace.

The most vivid example is an area in the Gulf of Mexico known as the Dead Zone, a 16,000 square kilometer (more than 6,000 square miles) area in the Gulf of Mexico, near the mouth of the Mississippi River. Roughly 40 percent of the continental United States drains its fertilizers, pesticides, and other runoff into the Mississippi, contributing to the Dead Zone. The size of the Dead Zone varies from year to year depending on weather conditions and runoff volume among other factors.

Scientists have studied this area over a series of years and found that below certain critical oxygen levels shrimp fishermen rarely catch shrimp in their trawl nets. Mobile organisms such as fish disappear as the oxygen levels drop (Harper and Rabalais 1996); they have likely left these areas in search of more oxygen-rich waters. Animals such as crabs and anemones, that are incapable of escaping, have been observed to die on the bottom. Since the natural scavengers have died or fled, the corpses are not consumed as they normally would be (Harper and Rabalais 1996). They simply lie on the bottom as a testament to the lifelessness of the Dead Zone.

Estuaries and lakes on all four coasts have suffered from low oxygen due to nutrient enrichment. Management measures in the Coastal Nonpoint Pollution Control Program

guidance (EPA 1993), if applied in watersheds like the Mississippi River and its tributaries, could begin to shrink "dead zones" and bring back the fisheries.

- Runoff Stimulates Harmful Algae Blooms

Pollution problems begin to really hit home when they threaten public health. The summer of 1997 saw an extremely frightening environmental disaster: fish kills that could sicken humans. A toxic micro-organism called *Pfiesteria* came onto the scene. That year alone, *Pfiesteria* killed more than a million fish, and caused human health problems including memory loss, reduced ability to solve simple math problems, and skin lesions resembling those found on dead and dying fish. Other algae species that can cause similar effects on fish communities and humans have caused blooms in other coastal areas as well.

Since *Pfiesteria* was first found in nature in 1991, it has caused major fish kills in North Carolina's Neuse and Pamlico Rivers and in Maryland's Pocomoke River. In the summer of 1997, besides the million fish killed in North Carolina, an additional kill (10,000 fish) followed in the Pocomoke River in Maryland (Burkholder and Glasgow 1997). An outbreak of *Pfiesteria* also was documented in the Indian River in Delaware (EPA 1998).

According to Dr. JoAnn Burkholder:

"Pfiesteria piscicida has been implicated as the causative agent of about 50 percent of the major fish kills (affecting one thousand to one billion finfish and shellfish) in North Carolina's estuaries and coastal waters alone" (Burkholder 1996).

"All the evidence that we have suggests that this dinoflagellate began to become highly active in toxic outbreaks within the past ten to fifteen years as pollution has continued to increase in many of our waters and as wetland areas to filter the pollutants have been eliminated" (Burkholder 1996).

The excessive non-point source loads of nitrogen and phosphorus in coastal North Carolina and Maryland are undeniable. While the poultry and swine industries have been quick to deny that their wastes could be contributing to this problem, scientists have acknowledged that reducing nutrients would likely reduce the *Pfiesteria* problem (WRRRI 1998, Boesch 1997, Boesch et al. 1997). In spite of industry's claims, according to a scientific consensus, the benefits of reducing nutrient pollution are clear:

"There can be little question that decreases in nutrient loading (both organic and inorganic forms of nitrogen and phosphorus) will reduce eutrophication and thereby, lower the risk of toxic outbreaks of *Pfiesteria*-like dinoflagellates, hypoxia and fish kills." *Findings of the Raleigh Report, 1998 (WRRRI 1998).*

There is no time to waste in addressing harmful algae blooms like *Pfiesteria*. The facts are in, and the Coastal Nonpoint Pollution Control Program is poised to fulfill this immediate water quality need.

- Runoff Clogs Harbors, Costing Taxpayers Millions

The mouth of the Maumee River in Ohio demonstrates yet another costly problem resulting from insufficient environmental controls. The tremendous plume of sediments that washes into Toledo Harbor clogs channels and challenges the Lake Erie ecosystem. In total, about 6.4 million tons of soil are eroded from cropland during rainstorms. While much of this soil remains on land, 1.3 million tons of sediment flows into the Harbor⁸ (Sohngen 1998).

Toxic metals in Toledo Harbor and Lake Erie contaminate these new sediments after they enter the river. As a result, most sediments dredged from the area are contaminated and must be confined in a facility designed to prevent toxics from escaping into the environment.

Reducing sediment runoff from farms could significantly reduce dredging and disposal costs. By slowing the flow of sediments into the river, and reducing the amount of material to be dredged by about two million cubic yards, the Army could prolong the life of the disposal facility and postpone its construction by about two years. These outcomes would save taxpayers as much as \$1.3 million each year (Sohngen 1998). In addition, spawning habitat for fish and other aquatic life would be improved, costs would be saved in treating drinking water, and recreational opportunities in the area would improve.

Preventing runoff can also save money for farmers. Besides topsoil, runoff carries valuable nutrients away from farm fields and into nearby waterways. By minimizing nutrient losses, farmers can save money on nutrient inputs, such as fertilizer and feed.

The measures needed to achieve these significant benefits for taxpayers, ports, farmers and the environment are precisely the type that would be provided by the Coastal Nonpoint Pollution Control Program. EPA's guidance contains management measures that could prevent sedimentation in rivers and harbors everywhere.

- Runoff Contaminates Beaches, Making Swimmers Sick

A study conducted by the Santa Monica Bay Restoration Project (SMBRP) identified health threats at prime swimming and surfing spots on the Southern California coast that were not previously under a swimming advisory (SMBRP 1996).

Santa Monica is a popular swimming and surfing area near Los Angeles in Southern California. On a typical day, storm drains carry runoff from more than 400 square miles, releasing from 10 to 25 million gallons of stormwater into the bay. When it rains, more than 10 billion gallons of runoff may wash into the ocean (Knudson and Vogel 1996). With the runoff come waste products of millions of residents in one of the most densely developed areas of the country. Besides toxic chemicals from anti-freeze, brake pads, leaking oil, urban lawn chemicals and the like, bacteria and viruses creep in, from leaking

sewage systems, animal waste, and fertilizers. These viruses can cause illness and render waters unsuitable for swimming.

The study found that people who swam near storm drains had increased incidence of fever, chills, vomiting, coughing with phlegm, ear discharge, respiratory disease, and gastrointestinal illness among other ailments. These problems were especially pronounced in swimmers who swam closest to the drains. When the total coliform counts were high, swimmers encountered the same problems more frequently, even when they swam further away from the storm drains (SMBRP 1996).

Certainly the severe problems experienced in Santa Monica Bay and places like it should be considered by those charged with planning new development in coastal areas. This calls for strong management measures for new and existing development in states' coastal runoff plans.

The Coastal Nonpoint Pollution Control Program

The prevalence of shellfish bed closures, beach closures, algae blooms and "dead zones" are a legacy of our historic inattention to the issue and serve as a stark reminder of the challenge at hand. By 1990, Congress recognized that earlier efforts to control the polluted runoff problem had not been successful and that coastal areas were especially vulnerable to this type of pollution. To ensure that states and federal agencies worked together to deal with this increasingly serious problem, Congress created the Coastal Nonpoint Pollution Control Program.

The Coastal Nonpoint Pollution Control Program focuses exclusively on efforts to prevent and control polluted runoff in coastal watersheds. As more and more people move to the coasts, disproportionate impacts, including runoff-related water quality degradation, make the focused attention to these areas not only appropriate, but essential.

The Coastal Nonpoint Pollution Control Program is the only federal program designed to address runoff in an accountable, targeted and enforceable manner, stressing coordination among agencies as well as local solutions. Run jointly by the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA), the Program requires coastal states to develop and implement plans to prevent polluted runoff. Its requirements initially allow the use of voluntary measures, but require back-up enforceable means to insure implementation where voluntary measures fail. This is the first time that a federal runoff control program has moved beyond voluntary efforts that have proven insufficient to solve the problem.

By issuing technology-based guidance, EPA and NOAA have provided states with measures that are known to be effective in preventing or controlling each major source of runoff (EPA 1993). These management measures address the most prevalent sources of runoff. Most of the measures recommended by EPA are cost-effective, and some will even save money for those who put them

in place. As a result, the coastal program could serve an excellent model for the rest of the country. Since states are to seek final approval of their plans by early 2000, this program needs

Maintaining the Enforceable Nature of the Coastal Nonpoint Pollution Control Program

We often forget that we are surrounded by enforceable laws, created and implemented for the common good. For example, our traffic system is enforceable. When one person runs a stoplight, many stand to be hurt, therefore we need rules to protect the public's interest. Enforceable measures also have been the cornerstone of successful environmental programs. For example, the Clean Water Act has enforceable regulations for controlling the discharge of pollution from point sources into waterways that are used by everyone. As a result, a factory or wastewater treatment plant would require a permit to discharge the amount of pollution that runs unregulated off of farms and developments every day.

The costs of polluted runoff to fisheries and tourism economies, not to mention the impacts on the ecological services otherwise provided by coastal areas, certainly justify the use of enforceable measures when voluntary measures fail. In the reauthorization of the Coastal Zone Management Act, for the sake of the coastal resources that the Act is to protect, the enforceability of the program should not be lost or weakened. Since the Coastal Nonpoint Pollution Control Program is the only program with enforceable provisions, if anything, these provisions should be strengthened and used as a model for other programs.

Consistency of Federal Projects with State Runoff Plans

The Coastal Nonpoint Pollution Control Program is strengthened by a provision of the Coastal Zone Management Act that requires federal actions in states' coastal zones to be consistent with state coastal zone programs. Since this includes the Coastal Nonpoint Pollution Control Program, the consistency provision will ensure that federal projects adhere to states' pollution control requirements, preventing such projects from undermining the states' efforts to protect their coastal zones.

Considered by many to be one of the most critical aspects of the Coastal Zone Management Act, the consistency provisions serve an important purpose and must not be weakened.

Conclusions

The deluge of people living on and near the coasts is not merely a fad that will soon yield to favor more inland locations. It is largely a result of rampant population growth combined with the beauty and economic promise of coastal areas. For this reason, coastal managers must find a sustainable way to accommodate larger populations, or risk losing coastal resources and creating unlivable communities. A carefully crafted Coastal Zone Management Act together with the Coastal Nonpoint Pollution Control Program provide a covenant for protecting our limited coastal resources at a time of great need.

In summary, Coast Alliance and its affiliated organizations strongly recommend that the Act should embody the following principles in order to achieve its goals:

- 1) The Coastal Nonpoint Pollution Control Program in its current form must be integrated into the Act, and sufficient funds must be authorized for its support.
- 2) The Program's penalty provisions and its requirements for enforceable mechanisms must be maintained and the Program must be funded.
- 3) Any new projects or programs supported through appropriations under this act must be environmentally protective, maintaining the natural biological, chemical and physical integrity of coastal ecosystems.

Since runoff is the primary cause of aquatic habitat degradation, achieving the goals of the Act requires preventing runoff through the Coastal Nonpoint Pollution Control Program. Without a doubt, the success or failure of the Coastal Nonpoint Pollution Control Program depends on three factors: adequate plans to control the true causes of polluted runoff, the presence of enforceable mechanisms to make sure those sources are reduced, and adequate resources to implement these plans. To date, states and the federal government have invested in the development of runoff prevention and control plans that are on the verge of completion. The pay-off from that investment should be realized by ensuring the program's completion. Congress can continue its efforts to protect the coasts by ensuring that the Coastal Nonpoint Pollution Control Program is reauthorized and funded as part of the Coastal Zone Management Act Reauthorization this year. Coast Alliance looks forward to working with this Subcommittee toward that end.

¹ Acreage affected by nonpoint sources were calculated by the Coast Alliance based on data provided by the National Marine Fisheries Service. These values represent only areas where waters were closed due to water quality concerns as documented in the database. To estimate percentage closed, Coast Alliance included areas where shellfishing is prohibited, restricted, or conditionally restricted, but not areas where shellfishing is conditionally approved or approved. Areas were considered impacted by nonpoint sources if nonpoint sources were documented in the NMFS database as an "actual" or "probable" cause of closures. Nonpoint sources are listed as probable causes where it is the best professional judgement of the agency that they are a contributor, but where no corroborating data are available.

² The primary source of this information was the United States Department of Agriculture, Soil Conservation Service 1993 report: Erosion and Sediment Dynamics of the Maumee River Basin and their Impact on Toledo Harbor.

Issues and Problems Associated with
Personal Watercraft
in
Barnegat Bay

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In recent years, the popularity of personal watercraft has greatly increased. Personal watercraft now account for more than one third of new recreational boat sales in the United States, making PWC the fastest growing segment of that market. Manufacturers estimate that 200,000 PWC are sold each year and that more than one million are currently in operation. Personal watercraft have triggered a serious debate across the country due to their rising numbers, misuse by some operators, and complaints from other water users. Locally, the use of personal watercraft in Barnegat Bay has been questioned.

Barnegat Bay Estuary stretches from Point Pleasant to the Little Egg Harbor Inlet, encompassing forty-two miles of New Jersey shoreline. Shallow, with an average depth of 6 feet, the estuary is an important natural resource supporting populations of commercially and recreationally significant fish as well as rare and endangered species. More than 400,000 people live along Barnegat Bay, with populations doubling in the summer. Rising numbers of Ocean County residents and users of the bay have led to an elevated number of conflicts involving PWC.

Cited on various Internet websites as one of the best places to ride in the Northeast, many personal watercraft riders enjoy Barnegat Bay's miles of shoreline. However, their interests seem to collide with those of other users. A survey was conducted on the attitudes and perceptions of fishermen and elected officials in Barnegat Bay. The results showed a large public concern for personal watercraft as a problem (Burger, Sanchez, and McMahon 1996). While naturalists in the area consider personal watercraft a nuisance, riders claim PWC are no more intrusive than any other vehicle on the bay. It is difficult to determine the exact numbers of personal watercraft in New Jersey because they are classified as boats, and are not separated by type¹ (New Jersey State Police 1998).

Despite their classification as boats, personal watercraft has adversaries among the boating community. Genmar Holdings Incorporated, the largest independent powerboat manufacturer in the world, has withdrawn from the National Marine Manufacturers Association in protest to NMMA's acceptance of PWC. Its president, Irwin L. Jacobs, blames personal watercraft for a negative backlash among boaters. He explains "Genmar no longer wants a part, even indirectly, of promoting a product the company believes is making our waterways - including those in national parks - less enjoyable" (Jacobs 1998).

Under rules proposed by the National Park Service, personal watercraft would be prohibited in national park units "unless the National Park Service determines that this type of water-based recreational activity is appropriate for a specific park site based on that unit's enabling legislation, resources and values, other visitor uses, and overall management objectives" (National Park Service (a) 1998). This proposal and other similar bans have been fought by the Personal Watercraft Industry Association (PWIA) on the grounds that they discriminate against PWC. They feel that as a boat, personal watercraft should be treated likewise, and in the event of

¹New Jersey's current definition states that personal watercraft is a Class A power vessel designed to a) be operated from a sitting, standing or kneeling position, b) equipped with an internal combustion engine that powers a water jet pump, and c) cannot be operated to disengage the pump to prevent the vessel from making headway (New Jersey State Police 1996).

a ban, all such vehicles should be affected. However, some feel that there are enough distinctions between personal watercraft and other boats to require a separate classification.

Personal watercraft differ from conventional boats in their use, design, and effects on water resources. Highly maneuverable, PWC have the capability for higher speed when closer to shore, often travel in packs, and have a tendency for repeated travel in a localized area (Snow 1988). In contrast to conventional boats, they also have a large discrepancy in their horsepower to length and weight ratios. Traditional watercraft have a horsepower to length ratio of 4:1 (16 ft/65 HP), whereas PWC have a ratio of 12:1 (National Parks and Conservation Association 1998). Design characteristics also draw an interesting comparison. While the capsizing of a conventional boat or a person falling overboard would normally be considered an emergency situation, this is not so for personal watercraft riders. Personal watercraft are built with lanyard cut off switches, in event the rider falls off. They are also designed to right themselves when overturned.

Personal watercraft have a more serious effect than merely being a nuisance. Overall, the number of recreational boating fatalities has been declining in recent years, but the number of personal watercraft related fatalities has been increasing. Preliminary statistics for 1997 show that 83 PWC-related fatalities occurred across the nation (National Transportation Safety Board 1998). In 1997, personal watercraft accounted for approximately ten percent of New Jersey's boat registrations, but twenty-seven percent of the state's boating accidents and forty percent of accident related injuries (New Jersey State Police 1998).

In a safety study conducted by the National Transportation Safety Board in 1998, seventy percent of the surveyed accidents involving PWC were attributed to one or more of the following three causes: inattention, inexperience and inappropriate speed. In a 1997 accident report, data also showed that 84 percent of personal watercraft operators had received no prior instruction (National Transportation Safety Board 1998).

Mandatory education, initiated in NJ in 1997, hopes to reduce accidents and user conflicts on the waterways. Under state law, PWC operators born after January 1, 1979 must complete an eight-hour boating safety course and carry an operator's certificate. "Although many factors influence accident statistics, New Jersey officials state that during the first year under the new law, accidents dropped 37 percent and injuries decreased 31 percent" (Personal Watercraft Industry Association 1998).

John Donaldson, the Personal Watercraft Industry Association director, believes most of the problems that PWC cause are the result of "the high proportion of first time boaters that ride them and from the fact that owners, even if schooled or experienced, typically loan their machines to unschooled or inexperienced friends and relatives" (Flannery 1998). Second owners of personal watercraft are also at a disadvantage because they may not benefit from the educational materials supplied with the initial purchase of a personal watercraft.

Many renters do not have prior experience with PWC and may have little or no experience boating. Statistically, most PWC operators involved in accidents do not own the vessels, but are

renting or borrowing. Wisconsin's boating safety education program has been successful in reducing the rental PWC accident rate. The program includes print and broadcast advertising, distribution of boating safety literature, and formal boating safety presentations. Wisconsin also requires a decal on the PWC listing the critical points of the boating safety course to insure against ignorance of the law (Thompson 1997). In Florida, the Department of Environmental Protection's Division of Law Enforcement recently issued personal watercraft safety videos to PWC owners throughout the state in hopes of lowering accidents (Florida Department of Environmental Protection 1998).

An emphasis on safety in personal watercraft education is important, but riders also need to understand the sensitive nature of the Barnegat Bay Estuary and the repercussions of their actions. PWC users may be unaware of laws and regulations concerning local areas, and therefore unknowingly endanger themselves and the environment. Barnegat Bay is a delicate habitat home to a wide range of birds, shellfish, and other wildlife. PWC affect the bay on several levels, from the fauna to the sediment of the shallow flats, to the tiny larvae of fishes and clams, to the waterfowl on the salt marsh islands.

Seagrasses, such as eelgrass (*Zostera marina*) and Widgeon grass (*Ruppia maritima*), make up part of the flora of Barnegat Bay. They are an integral part of the estuary, providing habitat for fishes and wildlife, improving water quality, controlling sediments, and reducing current velocity. Boats passing too close to seagrasses compromise the fragile ecosystem. Vessel wake turbulence dislodges sediments and uproots seagrasses, thus reducing their habitat value (Lockwood 1990). Wakes generated by PWCs may result in bank or shoreline erosion similar to that of conventional motorboats, and possibly more severe. The increase in severity is a result of the personal watercraft being able to operate at higher speeds when closer to shore. Impacts on seagrasses are minimized the further personal watercraft are from shallow waters.

The Personal Watercraft Industry Association sponsored a study to assess whether personal watercraft harmed seagrass beds when used in the manufacturer recommended minimum water depths (2 ft or more). They only found a suspension of fine sediments and exposure of seagrass rhizomes in the shallowest test areas (water depths of 21 to 28 inches) and that there were no statistically significant differences in abundances of seagrasses or other benthic biota (Continental Shelf Associates, Inc. 1997).

In shallow waters, boats can stir up bottom sediments suspending them and increasing turbidity. Areas with higher speed limits are more likely to have greater sediment suspension concentrations (Garrad and Hey 1987). It also limits light penetration and depletes oxygen, both detriments to aquatic life.

Water turbulence from passing boats has been known to affect salmonid reproduction both directly and indirectly (Horton 1994). Such direct effects can include a change in the normal spawning process of adult fish or alteration of normal development of progeny. These changes may adversely impact species as a whole. Indirectly, salmonids have been affected by habitat alteration occurring as a result of the sedimentation and turbulence created by the stirring up of bottom materials. Mortality of the salmonid embryos was seen when substrate was moved by the

direct discharge from a jet unit. The embryos were killed either by impact or as a result of being displaced from the gravel. Mortality decreased with increasing water depth, increasing gravel depth, and increasing distance from the boat. Low jet boat traffic was found to have little effect on the spawning salmon, but with heavy traffic, negative impacts are possible (Horton 1994). Another study found that the increase in mortality of fish species and eggs was directly related to the intensity of the turbulence (Killgore, Miller, and Conley 1987).

A study should be undertaken to determine whether personal watercraft impact the larvae in Barnegat Bay. According to the U.S. Fish and Wildlife Service, roughly two-thirds of important commercial and recreational species of fish and shellfish rely on estuarine marshes for spawning and nurseries. Under the Marine Fisheries Management and Commercial Fisheries Act and the Federal Fishery Conservation and Management Act, the state has an obligation for "the maintenance and enhancement of fisheries resources to support a commercial use where a species is the object of commercial fishing" and to support the conservation and enhancement of essential fish habitat, respectively (U.S. Fish and Wildlife Service 1998).

Besides being a nursery for a variety of fish and shellfish, the estuary is also a critical habitat for a wide range of birds. It provides them with "the necessary resources for survival, including sufficient food for themselves and their offspring, suitable habitats for breeding or foraging, and safety from environmental hazards such as inclement weather, predators, contaminants and human disturbance" (Burger 1996). Twenty species of colonial waterbirds nest within the Barnegat Bay-Little Egg Harbor Estuary. These include the state endangered least tern (*Sterna antillarum*) and black skimmer (*Rhynchops niger*), and the state threatened great blue heron (*Ardea herodias*), little blue heron (*Egretta caerulea*), and yellow-crowned night-heron (*Nycticorax nycticorax*). Others include common tern (*Sterna hirundo*), Forster's tern (*Sterna forsteri*), roseate tern (*Sterna dougalli*), caspian tern (*Sterna caspia*), gull-billed tern (*Sterna nilotica*), laughing gull (*Larus atricilla*), herring gull (*Larus argentus*), great black-backed gull (*Larus marinus*), great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), cattle egret (*Bubulcus ibis*), green-backed heron (*Butorides striatus*), tri-colored heron (*Egretta tricolor*), black-crowned night-heron (*Nycticorax nycticorax*), and glossy ibis (*Plegadis falcinellus*) (Jenkins 1996).

Barnegat Bay is not only popular with the aforementioned colonial waterbirds, but with human users as well, creating a conflict of interest. Increasing recreation intensity has been known to adversely affect bird species (van der Zande and Vos 1984). More specifically, the incidence of personal watercraft and bird contact is known to disrupt the nesting habits of the waterfowl (Bouffard 1982; Snow 1988; Burger 1998). As a result of their high-density nesting habits, colonial breeding waterbirds are particularly susceptible to human disturbance. Unfortunately, peak use of personal watercraft corresponds with the nesting season of several colonial waterbirds in the Barnegat Bay estuary.

Because of their relatively small size, personal watercraft can operate in shallow water near islands where birds nest. In a study conducted by Dr. Joanna Burger, a researcher from Rutgers University, the effects of personal watercraft on the behavior of the nesting common tern were examined in Barnegat Bay. Dr. Burger found a clear correlation between flight of birds off

an island and the close approach by personal watercraft, especially those passing at high speeds close to the shoreline. Occasionally, PWC actually skimmed over the edge of the island, running over nests with eggs or chicks. By looking at the number of birds flying over the colony, Dr. Burger was able to determine the extent of disturbance. In other studies dealing with human disturbance, it is documented that most species of colonial waterbirds respond similarly, only the degree of response varies. Boats that raced and those that traveled outside the established channel elicited the strongest responses, with personal watercraft generating a stronger response than motorboats (Burger 1998).

Although the wake of PWC are not as large as those of conventional motorboats, personal watercraft can approach much closer to nests and the shoreline. This may cause a more serious effect. While the motorboat's wake attenuates by the time it reaches the nest, the nearby PWC wake may wash over it (Snow 1988). Loud and fast moving personal watercraft can cause a traumatic noise and visual disturbance near a nest, prompting the birds to abandon them. The noise caused by the personal watercraft flushes birds off their nests and exposes eggs to chilling, overheating, and predation. Documented adverse effects include egg and nestling mortality, premature fledgling or nest evacuation, and reduced body mass or slower growth of nestlings (Rodgers and Smith 1995).

Dr. Burger suggests a zone of 100 meters between personal watercraft and nesting colonies, especially early in the season when the pairs are setting up territories and courting (Burger 1998). Her suggestion is supported by a Florida study on minimum distances needed to prevent human disturbance of single-species and mixed-species nesting bird colonies. Nine of the species included in the study were species also seen in the Barnegat Bay-Little Egg Harbor Estuary. They determined that all species must be considered when recommending set-back distances among mixed-species waterbird colonies because of their proximity to one another. Observations showed that nesting birds fled when disturbances reach twenty to forty meters away. To compensate for variation in vegetative cover, intraseasonal differences, and other sources of stress, they suggest a buffer zone distance of 90 meters (Rodgers and Smith 1995).

The impacts of environmental disruption include: activity/alarm and flight, avoidance and displacement, permanent loss of habitat use, decreased reproductive success, interference with movement, direct mortality, interference with courtship, alteration of behavior, change in community structure, and nest abandonment (Snow 1988). Environmental disruptions raise the energy cost of living at the expense of energy needed for reproduction and growth. If the organism is unable to compensate for such increases in cost of living, its reproduction, growth, and survival may be adversely affected.

Currently under question is the subsurface warning provided by PWC. It is thought that PWC engines are so quiet underwater that they fail to sound subsurface warnings to surfacing creatures, such as diving ducks, dolphins, and whales, thus becoming a collision hazard as they propel through the water (Whiteman 1998). A study in Washington state by Richard Osborne, a marine mammal expert, is presently underway to test this hypothesis.

the exhaust system unburned, causing both water and air pollution. As much as 20 to 30 percent of raw unburned gasoline and oil may be released directly out of the tail pipe (CNN 1998). There are some questions about the validity of the arguments presented by CNN and the California Air Resources Board and more research should be conducted on these subjects (Groupklemm 1998). If CNN and the California Air Resources Board are indeed correct, polycyclic aromatic hydrocarbons (PAH), a toxin to zooplankton, are being released into the water (National Parks and Conservation Association 1998). Zooplankton are at the base of the aquatic food net and are a necessary link in the food web. Bioaccumulation of this toxin poses a serious threat to life in the estuary.

To preserve the integrity of Barnegat Bay's wildlife, management of environmentally sensitive areas is necessary. Legislation cannot be effective without the support of enforcement. With cuts in state police patrolling the waters, it has become even more difficult to provide sufficient monitoring to the state's miles of shoreline, bays, rivers, and lagoons. As a result, there have been problems with enforcement despite existing legislation concerning irresponsible behavior and education requirements.

NJ S-556 drafted by Senator Leonard T. Connors seeks to give waterfront towns the authority to write tickets for boaters and personal watercraft operators who violate state safety regulations. It allows municipalities to adopt a resolution or ordinance restricting "the operation of personal watercraft above idle speed within 100 feet of residential units, beaches with swimming areas that have boundaries marked by buoys or signs, the shoreline, persons in the water, fishing piers, or other vessels." S-556 provides that the Bureau of Marine Law Enforcement or any officer of a county or municipal police department may enforce the bill. The bill additionally states that local regulations may hold the operator of a personal watercraft to a higher standard of safety than is required by state law, but it does not allow the municipality to prohibit a personal watercraft numbered following state law from operating on state waters.

NJ A-419 sponsored by Assemblyman Christopher J. Connors and Assemblyman Jeffrey W. Moran also would permit municipalities to restrict operation of personal watercraft under certain circumstances. This bill mirrors the S-556 with the inclusion of the ability of a municipality to prohibit or restrict the operation of personal watercraft during certain hours of the day, prohibit the towing of a water skier by personal watercraft and restrict the rental of personal watercraft within the territorial limits of that municipality or other subdivision.

If these bills succeed, they will bring more enforcement to Barnegat Bay's waters, providing more protection for our natural resources and those who use them. There are also several other viable options to augment the Bureau of Marine Law Enforcement. One such option could be a patrol of responsible or authorized PWC operators. This would allow for more effective policing of activities by increasing the number of enforcers on the water. Personal watercraft volunteer patrols have been successful in Long Lake, Washington. Long Lake homeowners have formed a community outreach patrol to inform boaters of lake rules and safety concerns. Each encounter is logged and reported for record keeping. They do not have any enforcement powers, but the presence of the patrol has served as a deterrent of unsafe and

reckless behavior. In cases of continued misconduct, the offense is reported to the sheriff's department (Ware, personal communication).

In 1997, the Maryland marine police force called for volunteers, as a result of the overwhelming number of boaters on the water and their lack of resources, to monitor all boats. Now approximately two hundred uniformed unpaid "reserve officers" have joined the two hundred paid full-time officers to assist in boarding boats and other non-law enforcement duties (Sherwood 1998). Instead of creating a patrol or asking for volunteers, Minnesota law provides a process for citizens to file complaints after witnessing violations. It requires complaints to include a sworn statement or a videotape of the violation. Offenders can be fined up to fifty dollars for the first violation and up to seventy-five dollars for the second (Elverum, personal communication).

Although enforcement is lacking, it is not the only problem contributing to the rise in Barnegat Bay user conflicts. University of Delaware Sea Grant examined the issue of recreational carrying capacity on Delaware's Inland Bays through an extensive field study. In a survey of boaters on low-, medium-, and high-use days, they found that more high-use-day boaters observed unsafe situations and reported higher degrees of conflict than boaters on less crowded days. A higher perceived boat density on the bay also contributed to decreased enjoyment. A similar study should be conducted for Barnegat Bay to provide information needed about users of the bay and to identify areas of concern. By determining such information as "group size and composition, activities and locations of use, intensity of use, type of boats, their sizes and engine horsepower, means of access to the bays, and frequency of boating use," it forms the foundation for better management of the bay (Falk, Graefe, Drogin, Confer, and Chandler 1992).

As the number of people on the water rises, space becomes limited, making it difficult to provide for all the multiple uses. Zoning is a viable solution and several approaches can be taken. One method is spacial zoning. Programs with limited motoring zones can protect sensitive resources while allowing public access compatible with environmental protection. Areas set aside as preserves could be incorporated into a zoning program that limits certain types of access and offers environmental protection. A Florida management plan suggested three types of limited-motoring zones:

- 1) slow/minimum-wake zones to improve safety and reduce boat-wake effects.
- 2) seagrasses caution zones to inform boaters of seagrass presence and encourage caution in boating.
- 3) boat-restriction zones that allow only poling and electric motoring (Sargent, Leary, Crewz, and Kruer 1995).

Several states have limited where PWCs can be used (see table). Personal watercraft are prohibited in the Florida Everglades National Park for protection of wildlife (Witemann 1998, National Park Service (b) 1998). In early June 1998, an ordinance was created to ban personal watercraft from within 1,200 feet of shore in the Florida Keys, from Key Largo to Key West for environmental protection (Board of County Commissioners of Monroe County, Florida 1998). Ruby Lake National Wildlife Refuge restricted motor size (10 HP or less) during part of the year and allows only motorless or electric motored boats during the rest of the year (Snow 1988).

Barnegat Bay should have a PWC ban in shallow, small, or environmentally sensitive waterways to ensure the preservation of New Jersey's flora and fauna. Accompanying the ban in these areas should be the development of a Boater's Guide to Barnegat Bay. Distributed to personal watercraft operators and other boaters, it would provide an exact visual representation (map) of environmentally sensitive areas so that proper measures could be taken to avoid them. A Boater's Guide would also serve as an educational tool about the estuary's unique environment.

An alternative would be to adopt time zoning, limiting personal watercraft use to certain hours of the day. John Donaldson, director of the Personal Watercraft Industry Association, agreed with this method and was quoted as saying "If you don't want people operating personal watercraft before ten or after four, write a regulation" (Williams 1991).

Limited speed zoning could be enacted with the knowledge of concentrated boating activity areas. During two mid-summer Saturdays in 1991, an aerial survey was conducted of Barnegat Bay by the NJ Department of Environmental Protection. At times of peak use, more than 800 vessels were found on the bay at one time. The vessels were not evenly distributed on the bay, but were clustered around identifiable "hot spots" and high traffic areas, where accidents are more likely (NJ Department of Environmental Protection and Energy 1993). New Hanover County, North Carolina, has recently placed a 5 mph limitation on personal watercraft speeds in several areas, including within the University of North Carolina at Wilmington Research area, within three hundred feet of posted waterbird sanctuaries or management areas, and within fifty feet of a designated marsh and shoreline area (New Hanover County Board of Commissioners 1997).

Volusia County, Florida has used several zoning techniques to regulate PWC. Out of 47 miles of beach in the county, two 600 foot personal watercraft zones are set aside along the ocean beach where personal watercraft may be launched and ridden inside the surfline. Riders may operate outside the personal watercraft zone but they must remain 1,500 feet from the shoreline. Riding is restricted to hours between 9:00 a.m. and 5:00 p.m. Rotation of the zoned sites provides for a different riding area, depending on the time of year. Once in the personal watercraft zone, there are also regulations that the riders must obey (Volusia County Government 1998). To utilize the area, permits must be purchased that help pay for medical emergency vehicles and constant patrolling (Witemann 1998).

The American River District at Folsom Lake, California also provides an area exclusively for personal watercraft. This closed course provides an area for riders to practice their riding skills and become more familiar with their watercraft. Also an educational tool, the course has experienced volunteers on hand to provide supervision and answer questions new riders might have. The program is new, having begun its operation this year, but has been successful so far (Jones 1998).

San Juan County, Washington has chosen to address their conflicts with personal watercraft by attempting to ban their use completely. However, the state court ruled against the county attempted ban on launching PWC. The decision in the case was based partly on state law

that required all boats and PWCs to pay a state registration fee. In effect, the court ruled that by requiring registration "... the state is granting a license to use those [boats] on state waters" and therefore the county ban would conflict with state authority. Following this decision, the state Supreme Court approved the local authority's right to ban personal watercraft from the county's waterways. The court concluded that the ordinance "was not unduly oppressive" and "a reasonable exercise of the County's police power and not inconsistent with [the industry's] due process rights" (Weden v. San Juan County 1998).

In 1990, the Hawaii legislature passed Act 313 banning commercial thrill craft² operation in Kaneohe Bay and Maunalua Bay on weekends and holidays, and banning all commercial ocean recreation activities on Sundays. This statute was challenged on the grounds that Act 313 violated the equal protection clauses of both federal and Hawaii state constitutions by singling out commercial thrill craft operators and prohibiting them to use thrill crafts on weekends and holidays. In support of the argument, an attempt was made to demonstrate that there were no significant differences between recreational and commercial users of thrill craft. Hawaii's Supreme Court upheld Act 313 prohibiting commercial thrill craft (PWCs), while permitting recreational operation on weekends and holidays as constitutional. The court found that the Hawaii legislature passed the statute for the legitimate government purpose of water safety and environmental preservation in the bays. The court "relied on common sense to conclude that a prohibition of commercial thrill craft would 'necessarily tend to make the Bays less congested and safer for the remaining users.'" No other state in the country has taken the approach of banning commercial use while permitting recreational use of the same class of thrill craft (Walker 1995).

While many of the suggestions in this paper have been proven useful in many cases, they are not the answers to all the problems of the personal watercraft issue. They are merely helpful suggestions. Much more research needs to be done to find out the impacts of personal watercraft specific to Barnegat Bay. It is important to stress that many of the problems caused by personal watercraft are caused by irresponsible or ignorant riders. It would be unfair to punish all users of personal watercraft as a result of the actions of these few. Many of the problems seem to be caused by user conflict, and are often a matter of opinion. However, there have been negative impacts on the environment and on the wildlife, who cannot speak for themselves. To preserve the integrity of Barnegat Bay's flora and fauna, restriction of uses in environmentally sensitive areas is necessary. As Ocean County's population continues to rise and more users frequent the bay, user conflicts are going to continue. A compromise between the different water use groups is needed to conserve our environmental resources and provide a better atmosphere for all users of the waterway.

² "Thrill craft" means any motorized vessel that falls into the category of personal watercraft, and which: 1) is generally less than 13 ft in length as manufactured; 2) is generally capable of exceeding a speed of 20 miles/hr; 3) can be operated by a single operator, but may have the capacity to carry passengers while in operation; or 4) is designed to provide similar operating performance as a personal watercraft through a combination of small size, power plant, and hull design.

The term includes, but is not limited to, a jet ski, waverunner, wet bike, surf jet, miniature speed boat, hovercraft, and every description of vessel which uses an internal combustion engine powering a waterjet pump as its primary source of motive propulsion, and is designed to be operated by a person or persons sitting, standing, or kneeling on, or being towed behind the vessel (National Transportation Safety Board 1998).

Taken from National Transportation Safety Board and National Association of State Boating Law Administrators.

State	Restricted area use	State	Restricted area use
Arkansas	Yes	New York	Within 500 ft. from shoreline on Lake George use no-wake speed
California	Monterrey Bay bans PWCs	North Carolina	Several local ordinances have restrictions
Colorado	Some have hp restrictions; other areas don't allow motorized vessels	North Dakota	All motorboats must obey No Wake zones
Connecticut	2 areas where PWCs are banned	Oklahoma	Waters controlled by municipalities may have restrictions
Florida	Local governments may regulate them	Oregon	Prohibited on most rivers
Indiana	State-owned lakes less than 300 acres restricted to boats powered by electric troll motors	Texas	No operation on holiday weekends; operate in clockwise direction
Kansas	Some county- and city-managed lakes		
Kentucky	Limit is 10 hp motors on some waters	Vermont	Yes
Maryland	Deep Creek Lake has hours of operation rule		
Massachusetts	PWC prohibited on inland waters less than 75 acres	Washington	Yes, by county ordinance
Minnesota	One lake has reduced hours of operation	Wisconsin	Local ordinances
Montana	Horsepower restrictions on some waters	Wyoming	Yes

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TESTIMONY OF
ROBERT C. SHINN, JR., COMMISSIONER,
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF NEW JERSEY
BEFORE THE
SUBCOMMITTEE ON FISHERIES CONSERVATION,
WILDLIFE & OCEANS
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES
FEBRUARY 25, 1999

Good morning, Chairman Saxton and members of the Subcommittee. I am Robert C. Shinn, Jr., Commissioner of the New Jersey Department of Environmental Protection. I am pleased to be here today and I thank the Subcommittee for the opportunity to discuss the proposed reauthorization of the Coastal Zone Management Act.

My testimony is being presented in support of the reauthorization of the Coastal Zone Management Act and its proposed amendments. New Jersey's coastal zone management program is located within the Department of Environmental Protection. As the Department's Commissioner, I am in a position to observe how the various aspects of the Coastal Zone Management Act are implemented and coordinated with other State initiatives.

as part of the State's strategy for curbing nonpoint source pollution and its impact on coastal waters.

- As a result of recent point and nonpoint source pollution control efforts over 86% of available shellfish beds are open to harvest. New Jersey wants the acreage open to harvest to continue to increase.
- New Jersey is also acknowledged as the National leader in monitoring of its bathing beaches. The goal of the Cooperative Coastal Monitoring Program is to reduce the number of days beaches are closed for recreational bathing.

The early success of New Jersey's regulatory CZMP experience resulted in a management system characterized as a site-by-site regulatory review process that evaluates each coastal location against specific criteria. While this approach was very effective at protecting sensitive land and water features and ensuring development design in accordance with best management practices, it did not allow for the assessment of the collective effects of various individual uses or activities on coastal resources. The shortcomings of this approach were recognized by both the State and Federal governments and led to an evolution in the delivery of coastal management services. The goals of the CZMA were restated in the *1996 NOAA Strategic Plan, A Vision for 2005* in a broader and more contemporary context and highlighted the role of public participation and promoted the linkages between land use / coastal decision-making with ecosystem quality impacts. Just as the Federal CZMA evolved, so has the New Jersey Coastal Management Program.

The New Jersey Coastal Zone Management Program has been enhanced in recent years by the designation of the Jacques Cousteau National Estuarine Research

Reserve and three National Estuary Programs within our coastal boundary. The success of these programs relies on effective federal/state/local government partnership focused on measurable goals and community based strategies. Partnerships are also being employed through other initiatives including the State's Open Space Preservation Program, Watershed initiative, and New Jersey's Smart Growth initiative, also known as the State Development and Redevelopment Plan. Each of these initiatives involve greater attention to limiting the impact of land-based sources of pollution. The reauthorization of the Coastal Zone Management Act provides an opportunity to enhance capacity and to address the challenges posed by balancing growth and development with the preservation and restoration of critical coastal habitats and other natural resource values.

As the most densely populated state in the nation, New Jersey has already been challenged with balancing the impacts of human activities on its coastal resources and the conflicts among competing uses. This competition can only escalate as development increases and communities seek to manage the impacts of sprawl, nonpoint sources of pollution, the cumulative and secondary impacts of development and the increased risk in coastal communities posed by coastal hazards. The proposed amendments to the Coastal Zone Management Act recognize the need to make the shift from a solely regulatory based coastal management delivery system to one that emphasizes incentives to enhance cooperation among federal, state and local governments and more specifically which builds capacity at the local level of government.

Presented below are the CZMA amendments which have the support of coastal states. Also included (as italicized bullets) are examples of initiatives which New Jersey will need support from CZMA to implement.

Increase base support for administration of coastal programs, particularly in the nation's largest states where grants have been capped for the past seven years despite substantial increases in state and local needs.

- *New Jersey uses the base CZMA funding to support administration of the State coastal permit and planning programs; salaries for permitting, enforcement and planning staff; operation funds in support of the programs and the Local Coastal Pass-through Grant Program.*
- *The following figures are the funding allotments for last year (10/1/97 - 9/31/98), this current year (10/1/98 - 9/30/99), and proposed figures for next year (10/1/99 - 9/30/00).*

	10/1/97	10/1/98	10/1/99
Section 306	\$2,110,000	\$2,200,000	\$2,040,000
Section 309	\$ 350,000	\$ 420,000	\$ 540,000
Section 6217	- 0 -	80,000	\$ 165,000
Section 310	- 0 -	- 0 -	\$ 46,000
Total	\$2,460,000	\$2,700,000	\$2,791,000

- *As illustrated the proposed dollar funding for Section 306 is a reduction from the previous two years. Although this reduction is offset by increases in other sections of the grant it is unclear as to whether those funds can be passed through for the same*

runoff and the protection and restoration of critical coastal habitats and other areas of particular concern through implementation of place-based management initiatives.

- *New Jersey is currently pursuing two performance-based initiatives in its coastal zone. The first is a partnership project between New Jersey Department of Environmental Protection (NJDEP) and Burlington County; the second is a partnership between NJDEP and the City of Bayonne. The goals of these partnerships are to (1) enhance the capacity of local government to protect the environment, (2) accelerate environmental improvements in and around each local jurisdiction, and (3) link environmental improvements with local economic development opportunities.*
- *New Jersey has also used its base funding in support of a Local Coastal Grant Program. The Local Coastal Grant Program has provided between \$150,000 and \$200,000 / year in small grants to local governments (municipalities and counties) and not for profit organizations to conduct coastal enhancement projects. The Department provides the federal match for these grants so there is no match requirement for the applicants. These grants have traditionally allowed communities to conduct projects they could otherwise not have pursued. The funds cannot be used for capital improvement projects but have been used for dune stabilization, shoreline restoration, education, outreach, interpretive signage, handicapped access, non-point pollution control programs and coastal resource planning projects. The grants are usually awarded in the \$10,000 dollar range - allowing for greater*

Specifically through Section 309 of the CZMA New Jersey has entered into a partnership with stakeholders in Monmouth County to develop a sustainable watershed management plan for the Manasquan River Watershed - a coastal watershed. This pilot project will result in management measures implemented by local government to achieve a watershed management plan that balances the needs of the developing communities and the natural resources in the watershed. As a condition of Section 309 funding the Manasquan Watershed Management Plan must also result in changes to New Jersey's coastal management program which can be emulated elsewhere in the coast.

New Jersey has developed a coastal management strategy that builds upon the State's 20 plus years of Coastal Zone Management regulatory experience. This experience has shown that the coastal decision-making process must be more predictable; more compatible with local stewardship of coastal resources; and based on a more cooperative working relationship between state, regional, county and local governments . The New Jersey Department of Environmental Protection's Strategic Plan highlights this strategy and directs its implementation to achieve measurable outcomes. The New Jersey Coastal Zone Management strategy and the goals of the Coastal Zone Management Act build on coordination at all levels of government, and encourages stakeholders to be involved in planning, and the design and implementation of strategies for the regions in which they live. The involvement of local governments and stakeholders in the development and implementation of changes to the decision-making process provides a platform for success. To attain that success the tools and technical assistance required to make these decisions must be made

available to local governments and stakeholders. The amendments to the Coastal Zone Management Act will provide states with the resources to make these tools available.

The coastal resources we are charged to protect do not recognize political boundaries or agency subdivisions. It is our collective responsibility to provide decision-makers with the tools and technology necessary to make the right decisions where our nation's limited resources are concerned. New Jersey faces numerous environmental management challenges to its coastal resources. We have accepted those challenges and developed a strategy to contend with them. This strategy involves partnering with all levels of government, and establishing indicators to measure our success. This strategy also requires the dedication of significant resources to do the job well. New Jersey can enumerate our success to date, but our need is to maintain momentum and for even greater success. The Coastal Zone Management Act is an integral part of helping New Jersey meet these challenges.

In summary, the reauthorization and amendments proposed to the Coastal Zone Management Act will in part provide the resources required to implement many initiatives recognized as necessary elements to sustain a healthy coast. I invite the members of this subcommittee to tour New Jersey's coast and view for themselves the successes we've achieved and the work still needed to be accomplished.

In 1972, Congress passed the Coastal Zone Management Act (CZMA) to provide incentives for states, on a voluntary basis, in cooperation with local governments *to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to*

achieve the wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development programs ... (16 USC 1452(2))

New Jersey agreed with Congress and has upheld that charge. On behalf of New Jersey's coastal interests I support the reauthorization of the Coastal Zone Management Act and the vision of a healthy and sustainable coast.

Testimony of Sarah Cooksey
Administrator, Delaware Coastal Management Programs
On Behalf of the Coastal States Organization
Before the Subcommittee on Fisheries Conservation, Wildlife and Oceans
House Resources Committee
February 25, 1999

Introduction

I want to thank Chairman Saxton and the other members of the Subcommittee for the invitation to testify on the reauthorization of the Coastal Zone Management Act (CZMA). My name is Sarah Cooksey, and I am the Administrator of Delaware's Coastal Management Programs. I am testifying today in my role as Chair of the Coastal States Organization (CSO). Since 1970, CSO has represented the interests of the coastal states, including the Great Lakes and island Territories, as an advocate for sound and balanced coastal, Great Lakes and ocean resource management and development. CSO's membership consists of Delegates appointed by the Governors of the 35 States, Commonwealths, and Territories bordering the Atlantic and Pacific oceans, the Gulf of Mexico and Great Lakes. We greatly appreciate the early attention the Subcommittee is giving to the reauthorization of the CZMA, and urge Congress to complete action this year on this important legislation.

Summary

The Coastal Zone Management Act (CZMA) provides a flexible framework to develop collaborative, innovative community-based strategies to balance the challenges posed by growth and development with the need to preserve and restore critical habitat and other natural resource values. The CZMA is unique among federal statutes. It provides incentives to the states to identify their own coastal management priorities consistent with broad national objectives. In developing their coastal management programs, States determine the right mix of regulation, cooperation and education needed to address those priorities. Where states adopt enforceable policies, federal activities, licenses and permits must be consistent with those policies.

The CZMA should be amended to take advantage of its inherent strengths. In addition to providing increased support for state coastal programs under §§306 and 309 of the CZMA, specific support should be authorized for the implementation of planning, restoration and growth management initiatives by states and local communities and the development of new tools that will enhance state and local capacity to assess and manage cumulative and secondary impacts of development.

Under the CZMA, states have general authority to provide targeted assistance to communities to preserve or restore specific areas or to restore waterfront communities which have particular conservation, recreation, historical, ecological or aesthetic value. However, funding for these

projects has been very limited and, where it is available, it competes with coastal program administration, implementation and enhancement funds. This puts the states in the untenable position of choosing between preserving and improving its ongoing CZM program or providing assistance for communities to undertake specific priorities protection or restoration in critical areas.

These amendments, which are discussed in more detail below, seek to redress this by providing direct assistance, in addition to that provided to base programs under Sections 306 and 309 of the CZMA, that will enable states to:

- (1) improve their ability to assist local decision-makers to understand the impacts and manage growth and development more efficiently, to identify a compatible mix of residential, commercial and open space uses, and to revitalize communities;
- (2) provide for increased protection, conservation and restoration of critical coastal resources;
- (3) access management-oriented research which provides new technology and tools that enhance the capacity of coastal decision-makers to assess, monitor and cumulative and secondary impacts.

CSO supports other technical changes and clarifications of the CZMA which will: (i) assure funding under the Coastal Zone Management Fund for regionally significant projects, international projects; emergency response to coastal hazards, and innovative demonstration projects; (ii) provide for the development in consultation with the states of outcome measures to assure effectiveness "on the ground"; and, (iii) increase support for the National Estuarine Research Reserve System (NERRS.) (The states support the reauthorization recommendations of the National Estuarine Research Reserve Association as outlined in the accompanying testimony of Gary Lytton, Rookery Bay NERR, FL.)

Background

Our nation's history, economy and culture are inextricably linked to and dependent upon the natural resources of the coasts. Our future is linked to their continued health. The story of our coast is, in many respects, the story of our nation which includes...the ports around which our nation's largest cities grew... the Victorian houses of Cape May and the boardwalks lining Monmouth County, New Jersey... the barrier islands of North Carolina that depend on the sea...the indigenous cultures of Alaska and the Pacific islands...the old fishing and canning wharfs of San Francisco...the lighthouses along the Great Lakes... the Art-Deco district of South Beach in Miami...I am sure that each one of us can add to the list.

It has been estimated that economic activity in coastal areas currently supports 28.3 million jobs while generating incalculable indirect economic benefits. Significant sectors of our nation's economy, including maritime trade, fisheries and mariculture, recreation and tourism, and oil and gas development depend directly on a healthy coastal ecosystem. Neither our picture post card memories nor our current economic prosperity will last for without careful "stewardship." By stewardship, I mean the actions we take (or refrain from taking) to ensure that we are able to sustain both the coastal natural resources and the coastal economic opportunity for future generations.

The Coastal Management Challenge

Activities last year in connection with the Year of the Ocean began to focus attention on the critical coastal and ocean resources challenges that we face. These challenges include: the pervasive and persistent effects of land-based sources of coastal pollution; the cumulative and secondary impacts of increased development in coastal areas on habitat and water quality; the potential for inefficient investment in public infrastructure resulting from urban sprawl; and the inefficient investment in environmental protection resulting from conflicting mandates.

As States and the federal government continue actively to support initiatives to enhance our nation's prosperity and economic development, we have a joint responsibility to address the increased demands that growth and development places on our coastal resources. That is particularly true along the coasts where thriving economies rely directly on healthy ecosystems. Healthy coasts support maritime activity, fisheries and other marine life, the aesthetic and natural resources values coastal tourism and recreation, the wise management of mineral and energy resources, and numerous other activities.

In both economic and human terms, our coastal challenges were dramatically demonstrated in 1998, by the numerous fish-kills associated with the outbreaks of harmful algal blooms, the expansion of the dead zone off the Gulf coast, and the extensive damage resulting from the record number of coastal hurricanes and el Nino events. Although there has been significant progress in protecting and restoring coastal resources since the CZMA and Clean Water Acts were passed in 1972, many shell fish beds remain closed, fish advisories continue to be issued, and swimming at bathing beaches across the country is too often restricted to protect the public health.

Last year, the H. John Heinz Center III Center with support from NOAA brought together a cross-section of leaders from all major sectors concerned with coasts and oceans to identify key issues affecting the nation's coastal and ocean future. In May 1998, they issued a Report entitled "Our Ocean Future" which, among other specific recommendations, concluded that:

To meet the challenge of protecting and conserving the coastal environment, the United States will need to manage the oceans and coasts in new ways. The economic and other consequences of coastal storms and erosion need to be reduced, and sustainable economic growth needs to be achieved in maritime recreation, marine resource development, global trade, and other activities. Progress in these areas increasingly lies beyond direct federal control. A rich experience base is emerging on partnership approaches that build on the roles and capabilities of the private sector; the knowledge base provided by scientific researchers; and the conservation and economic development tools of local, state and federal governments.

The population of coastal communities and coastal tourism continues to grow at a steady pace, placing ever increasing demands on coastal resources. The population densities of coastal counties are already five times the national average, and coastal areas are becoming more crowded every day. From 1996-2015, coastal population is projected to increase from 141 million to 161 million. Yet, funding for coastal programs under the CZMA not increased

States have recognized the importance of conservation of open space, discouraging sprawl development in rural areas, and protecting agricultural lands. The public also has indicated its strong support for these initiatives. In 1998, 124 ballot initiatives were approved by voters calling for improved management of development and the conservation of open space.

The CZMA

The CZMA is the only federal statute which sets forth a federal-state partnership to achieve the goal of maximizing sustainable economic and environmental objectives. The CZMA incorporated the essential principles of the "smart growth" and "sustainable development" movements over twenty years before the terminology came into vogue. Congress was prescient in 1972 when it passed the Coastal Zone Management Act (CZMA) to provide incentives:

to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve the wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development programs . . . (16 USC 1452(2))

With the enactment of the Coastal Zone Management Act in 1972 (CZMA), Congress improved the management of the coasts in two fundamental ways. First, it provided incentives that encouraged states to develop and implement plans, based on local priorities, to achieve a variety of national economic, environmental and societal objectives related to the coasts. Second, it provided states with the authority to ensure that federal activities, licenses and permits would be consistent with the enforceable policies of federally approved state coastal zone management programs. It is not surprising that the principles of smart growth and recognition of the need to balance environmental and economic concerns was recognized first as essential to proper management of coastal resources because that is where the concentration of people and their demand for the use of natural resources was, and still is, the most acute.

Over the past six months, CSO has solicited the views of the states, NOAA, the National Estuarine Research Reserve Association and others about how the CZMA reauthorization can help to address these challenges. There are clear needs which have emerged from our discussions.

- There is a need to support coordinated decision-making across programs and at the federal-

state-regional and local level.

- The focus of resource protection must expand from the resource specific mandates of the past to developing tools to accommodate multiple objectives and improve the quality of life.
- The focus of problem solving is increasingly shifting to locally-based solutions, which should be developed and applied within the context of broader ecosystem and regional systems.
- Few local governments have the capacity to adequately address the complex social, scientific, technical, fiscal and legal dimensions of the problems resulting from the growth of coastal communities.

34 of the 35 eligible state have either developed or are developing programs to protect and restore wetlands, increase public access to the shore, address the threats of coastal hazards, identify and manage the potential cumulative and secondary impacts of development, and revitalize waterfronts. In that time, states have measurably —

- Reduced the loss of wetlands and are beginning to reverse those losses through restoration;
- Increased public access to coastal resources, such as with the 18-mile Hudson River Walkway in New Jersey; and
- Returned dilapidated waterfronts to vibrant centers for tourism, commerce and recreation, such as with the redevelopment of Baltimore's Inner Harbor and other projects throughout the nation.

Other success stories are set out in two recent NOAA publications the "Coastal Zone Management 25th Anniversary Accomplishments Report" and the Biennial Report to Congress, "Coastal Stewardship Towards a New Millennium: 1996-1997". These reports just scratch the surface of the activities in the states, and I hope each Member will have a chance to contact their states directly to find out not only what they have done so far to address coastal management challenges but, more importantly, what they need to accomplish in the future and how we can support these efforts through the reauthorization of the CZMA.

Despite the accomplishments, we have also learned some surprising lessons. In some cases we have discovered that the solutions of the past are part of the problem of present. For example, transportation investment can operate as an indirect subsidy for commercial sprawl, creating demand for housing, school construction and other public infrastructure while destabilizing the urban tax base. Environmental regulations can discourage downtown revitalization and encourage development in distant pristine areas. In 1997 the National Research Council issued a study entitled "Striking the Balance: Improving Stewardship of Marine Areas" concluding, inter alia, that:

The governance and management of our coastal waters are inefficient and wasteful of both natural and economic resources. The primary problem with the existing system is the confusing array of laws, regulations, and practices at the federal state and local levels. The various agencies that implement and enforce existing systems operate with the mandates that often conflict

with each other. In many cases, federal policies and actions are controlled from Washington with little understanding of local conditions and needs.

In addition, zoning intended to protect residents from offensive development can lead to the segregation of activities in general. We live in one place, work in another, shop in another. The result — we drive to work, our children are driven to school, drive to the mall, and (for those whom shopping at the mall is not sufficiently recreational) drive to the park. State, local and community officials and planners will tell you that the resulting sprawl costs money and lots of it. Sprawl is coming to be understood as economically inefficient land use. In addition to the much greater infrastructure costal, traffic congestion associated with sprawl results in substantial economic losses in terms of time and energy consumption. Most frustratingly, planners have found that sprawl is self-sustaining in that it inevitably leads to demands for transportation by-passes which open up new areas for similar development and result in the economic stagnation and decline of areas only recently developed.

Unfortunately, few local governments have the capacity to adequately plan to accommodate the inevitable future growth of communities while preserving the quality of life and ecosystem vitality. For example, while technological advances, such as the development of computer generated geographic information systems (GIS), have greatly expanded the ability to assess the impacts of infrastructure placement in relation to existing development, future growth patterns and natural resources, local community officials and planners do not have the resources to get past the entry-level threshold of acquiring the equipment, expertise and data to make use of these technologies. It is important to recognize that advances like GIS are simply tools and that their effectiveness in improving decision-making will depend assuring that the data is scientifically valid, current, accessible and usable by constituents at the state and local level.

CZMA provides a ready made framework for addressing these issues. The focus of coastal management has begun to change in response to the realization that a process and project oriented approach to coastal management is not going to keep up with the demands being placed on coastal communities and resources. It is becoming increasingly clear that coastal communities need help to improve their ability to plan and manage growth and development efficiently.

It is time for a major commitment through the CZMA to support state efforts to provide new and improved planning and management tools to assist local communities to better understand and address the extremely complex economic and ecological dynamics of coastal systems and communities. This can be done both through improving the responsiveness of NOAA research to state and local management needs and providing assistance directly to states to work with local communities.

While all of our natural resources are valuable, some are more important than others in their relation to an ecosystem, and some are critically essential to the long-term viability of an ecosystem. For example, small tidal creeks have been identified as one of these essential areas. In their natural condition, these areas are among the most productive biologically, but because of their interface with the land and shallowness, they are also the more easily stressed. Advances in management-oriented science and technology are not only allowing us to identify these critical areas, but can assist us to establish impact thresholds, such as tolerance and impact levels for specific percentages of paved or other impervious surface area. This kind of information allows us to both protect resources and accommodate growth through improved design and location.

CSO's CZMA Reauthorization Proposals

The following draft legislative proposals are offered for consideration of the Committee in drafting the CZMA Reauthorization legislation. We look forward to working with the Committee, states and other interested constituents to reach a consensus on final amendments.

1. Better Enable States to Build Community Capacity for Coastal Management.

The CZMA should be amended to provide dedicated support to states for the development of local, community-based solutions to manage the impacts on coastal uses and resources caused by or which may result from, increased development or urban sprawl. These initiatives should be directed to revitalize previously developed coastal areas, discourage development in undeveloped, environmentally sensitive or other coastal areas of particular concern, and emphasize water dependent uses. Targeted support for these place-based, community and critical area initiatives is necessary to address problems in the most sensitive watersheds and coastal communities.

Draft Proposed Language:

Amend the CZM Findings to add the following:

There is a need to enhance cooperation and coordination among states and local communities and to increase their capacity to identify development, public infrastructure and open space needs and to develop and implement plans which provide for continued growth, resource protection and community revitalization.

Delete section 310 and insert the following new section:

Section 310 — Planning and Managing Community Growth and Resource Protection.

(a) The Secretary is authorized to enter into cooperative agreements with state coastal management programs to provide assistance to coastal communities to support the planning, development and implementation of local, community-based initiatives which will increase their capacity to identify development, public infrastructure and open space needs and which provide for resource protection and restoration while addressing the need for community revitalization and continued growth consistent with the purposes of this Act.

(b) In developing and implementing the program, states shall provide such assistance as needed to improve community capacity to:

- (1) identify and provide for better planning and management of critical coastal habitat, land use and growth patterns;
 - (2) identify and plan for the impacts of the placement of new public facilities, housing, and commercial and industrial development and for efficient investment in transportation and other public infrastructure; revitalize and restore coastal waterfronts communities and water dependent uses; mitigate impacts of coastal hazards; and preserve open space areas for recreation, habitat and scenic views; and
 - (3) enhance public awareness of and participation in planning and managing growth and conservation in coastal communities consistent with the purposes of this Act.
- (c) States shall demonstrate that projects have the support and participation of affected local governments, and maximize environmental benefits to the extent practicable while supporting coastal dependent growth and development consistent with the purposes of the Act. Funding shall distributed to the states pursuant to the formula established under Section 306(c) (16 USC 1455(c)).

2. Direct NOAA to Provide Management Oriented Research and Technical Assistance.

Current provisions calling for “management-oriented” research and technical assistance from NOAA to the states should be strengthened to provide greater accountability and closer coordination with the states, including a request for a report and recommendations to Congress regarding the effectiveness of NOAA in providing such research and assistance.

Draft Proposed Language:

Delete provisions of section 310; insert a new section 310A as revised:

Section 310A—Management-Oriented Research and Technical Assistance

- (a) The Secretary, in consultation and cooperation with the states and National Estuarine Research Reserves, shall undertake a program for management-oriented research and technical assistance necessary to support the implementation of coastal management objectives, identification and development of innovative technology and technology transfer which addresses coastal management issues, and such technical assistance and training as may be needed to increase the capacity of state and local communities as provided in Section 310. In implementing this section, the Secretary shall provide for coordination of support for the services and activities under this section with all other activities that are conducted by or subject to the authority of the Secretary.
- (b) The Secretary shall identify services and activities undertaken by other departments, agencies or other instrumentalities of the Federal Government which support the purposes of this section, and enter into memoranda of agreement or other arrangements as appropriate which provide for coordination and mutual support.
- (c) In carrying out programs under this section, the Secretary may enter into contracts or other arrangements with qualified persons but shall, to the maximum extent practicable, coordinate with and utilize state coastal management programs and estuarine research reserves for the purposes of carrying out this section.
- (d) By January 2001, the Secretary shall provide a report to the Senate Commerce Committee and House Resources Committee evaluating the agency’s effectiveness in providing management-oriented research and technical assistance; identifying the applicable services and activities and steps that have been undertaken to provide for coordination and mutual support of coastal programs, and making specific recommendations on changes that should be made to improve the delivery of such services. In preparing the report, the Secretary shall include participation from representatives of the Governors of the Coastal States and Natural Estuarine Research Reserves.

3. Increase Support for the Administration and Enhancement of CZM Programs and the Protection and Restoration of Coastal Resources.

Despite clear national benefits, federal support for state Coastal Zone Management programs has not kept pace with growing challenges. Funding for state coastal programs in real terms has declined due to inflation and the addition of states participating in coastal programs. Federal support for state and local communities efforts to plan for and manage our nation's coasts is diminishing despite increasing demands. This is particularly true in larger states where state grants have been capped at \$2 million a year for the past eight years, despite substantial increases in population in the coastal areas and an increased recognition of the importance of improving management of polluted runoff, habitat protection and restoration, and community growth patterns.

Adequate funding should be provided under Section 306/309 state grants to assure states' abilities to address polluted runoff consistent with their coastal program management responsibilities, including interagency and state-local coordination of initiatives to address the causes and impacts of nonpoint pollution, particularly as they relate to land use and linking state water quality with other coastal resource protection objectives. The states recommend increasing appropriations levels for base 306/309 programs for administration and enhancement to \$75 million, in order to address this shortfall and provide for equitable distribution among all coastal states and territories.

In addition, existing authorities under Section 306A of the CZMA (16 USC 1455A) provide adequate authority to preserve or restore specific areas of the state with particular conservation, recreation, ecological or aesthetic value, as well as to provide public access and address revitalization of waterfronts of particular concern. However, funding for these targeted place-based activities to protect and restore "priority areas" competes with base program administration and enhancement funds and is limited to 10 percent of overall appropriations. This puts the states in the untenable position of choosing between preserving and improving its CZM program or providing support for addressing its most significant problems. These limitations should be removed and specific funding authorized for 306A to enable states to address preservation and restoration of these "priority" areas. CSO has proposed a modest annual funding level of \$12 million to be targeted to 306A activities.

These changes will enable state coastal programs to target preservation and restoration in areas of the state where they are most needed. It will also help support integration of state activities with federal, state and local initiatives including, but not limited to, efforts under State Unified Watershed Assessments to address polluted runoff and restore the most degraded areas, as well as activities to address the protection and restoration of fish habitat and coral reefs.

Draft Proposed Language:**§ 1464. Authorization of appropriations (Section 318)**

(a) Sums appropriated to Secretary. There are authorized to be appropriated to the Secretary, to remain available until expended--

~~(1) for grants under sections 306 and 309 of the Act (16 U.S.C. §§ 1455, 1455a and 1456b), for grants under sections 306, 306A, and 309 [16 USC §§ 1455, 1455a, 1456b]--~~

(A) \$ 75,000,000 for fiscal year 2000;

(B) \$ 78,000,000 for fiscal year 2001; and

(C) \$ 82,000,000 for fiscal year 2002; and

(D) \$ 85,000,000 for fiscal year 2003; and

(E) \$ 90,000,000 for fiscal year 2004; and

~~(2) for implementation of the purposes in section 306A of the Act as amended, \$12,000,000 for fiscal year 2000; and such sums in excess of \$12,000,000 as are necessary for fiscal years 2000-2004.~~

~~(3) for grants under section 315 of the Act (16 U.S.C. § 1461); for grants under section 315 [16 USC § 1461]--~~

(A) \$ 12,000,000 for fiscal year 2000;

(B) \$ 14,000,000 for fiscal year 2001; and

(C) \$ 16,000,000 for fiscal year 2002; and

(D) \$ 18,000,000 for fiscal year 2003; and

(E) \$ 20,000,000 for fiscal year 2004.

~~(4) for implementation of the purposes in section 310 of the Act as amended, \$30,000,000 for fiscal year 2000; and such sums in excess of \$30,000,000 as are necessary for fiscal years 2001-2004. These amounts are in addition to those authorized in subsection (3); and~~

~~(5) for costs associated with administering this title, \$5,500,000 for fiscal year 2000; and such sums as are necessary for fiscal years 2001-2004.~~

(b) Limitations. Federal funds received from other sources shall not be used to pay a coastal state's share of costs under section 306 ~~or 309~~ [16 USC § 1455 ~~or 1456b~~].

(c) Reversion of grants to Secretary. The amount of any grant, or portion of a grant, made to a State under any section of this Act which is not obligated by such State ~~within three years from when during the fiscal year, or during the second fiscal year after the fiscal year, for which it was first authorized to be obligated by such State shall revert to the Secretary. The Secretary shall add such reverted amount to those funds available for grants under the section for such reverted amount was originally made available to States under this Act.~~

~~(d) Federal funds allocated under this title may be used by grantees to purchase Federal products and services not otherwise available.~~

4. Other Changes:***A. Clarify The Policy To Support Coastal-Dependent Development***

Changes to the Congressional Policy should be made to clarify that the primary objective of the CZMA and state coastal management programs to support "coastal-dependent" development compatible with resource protection priorities, not to support any new commercial developments adjacent to existing development. The objective of steering development into existing developed areas regardless of whether it is compatible with surrounding uses or state policy, has been relied on

as a "national benefit" in a successful challenge to a state consistency objection.

Draft Proposed Language:

Amend Section 303(2)(D) (16 USC 1452(2) (D)) as follows:

(D) and the location to the maximum extent practicable of new, coastal-dependent commercial or industrial developments in or adjacent to areas where such development already exists.

B. Coastal Zone Management Fund (CZMF)

For the past several years payments into the CZMF from loan repayments under the old Coastal Energy Impact Program have been earmarked to cover OCRM Administrative costs and diverted to offset funding for the National Estuarine Research Reserves. As a result no funds have been provided for other eligible purposes including international, regionally significant and interstate projects, and emergency grants to address disaster related circumstances. It is projected that there will be appropriated \$4-\$3.8 million annually as a result of loan repayments into the CZMF. Section 308 should be amended to eliminate funding for OCRM Administration which should be funded through a direct appropriations from NOAA operations accounts. (See 14 USC 1464(a) (5) above.) CZMF funds should be made available to the states to support other eligible projects. Without these funds there is no way to support innovative regional or interstate projects, or to respond to emergencies resulting from coastal disasters which result in increased demands on state coastal programs.

Draft Proposed Language:

Deletions are ~~stricken~~ and new language in *italics*

§ 1456a. Coastal Zone Management Fund (Section 308)

(a) (1) The obligations of any coastal state or unit of general purpose local government to repay loans made pursuant to this section as in effect before the date of the enactment of the Coastal Zone Act Reauthorization Amendments of 1990 [enacted Nov. 5, 1990], and any repayment schedule established pursuant to this title as in effect before that date of enactment, are not altered by any provision of this title. Such loans shall be repaid under authority of this subsection and the Secretary may issue regulations governing such repayment. If the Secretary finds that any coastal state or unit of local government is unable to meet its obligations pursuant to this subsection because the actual increases in employment and related population resulting from coastal energy activity and the facilities associated with such activity do not provide adequate revenues to enable such State or unit to meet such obligations in accordance with the appropriate repayment schedule, the Secretary shall, after review of the information submitted by such State or unit, take any of the following actions:

(A) Modify the terms and conditions of such loan.

(B) Refinance the loan.

(C) Recommend to the Congress that legislation be enacted to forgive the loan.

(2) Loan repayments made pursuant to this subsection shall be retained by the Secretary; ~~as offsetting collections, and shall be deposited into the Coastal Zone Management Fund established under subsection~~

(b) (1) The Secretary shall establish and maintain a fund, to be known as the "Coastal Zone Management Fund", which shall consist of amounts retained and deposited into the Fund under subsection (a) and fees deposited into the Fund under section 307(i)(3) [16 USC § 1456(i)(3)].

(2) Subject to amounts provided in appropriation Acts, amounts in the Fund shall be available to the Secretary for use by the states for the following:

~~(A) Expenses incident to the administration of this title, in an amount not to exceed for each of fiscal years 1997, 1998, and 1999 the higher of—~~

~~(i) \$ 4,000,000; or~~

~~(ii) 8 percent of the total amount appropriated under this title for the fiscal year.~~

~~(B) After use under subparagraph (A)—~~

~~A~~ (i) projects to address management issues which are regional in scope, including interstate projects;

~~B~~ (ii) demonstration projects which have high potential for improving coastal zone management, especially at the local level;

~~C~~ (iii) Emergency grants to State coastal zone management agencies to address unforeseen or disaster-related circumstances;

~~(iv) Appropriate awards recognizing excellence in coastal zone management as provided in section 314 [16 USC § 1460];~~

~~D~~ (v) program development grants as authorized by section 305 [16 USC § 1454], in an amount not to exceed \$ 200,000 for each of fiscal years 1997, 1998, and 1999; and

~~E~~ (vi) to provide financial support to coastal states for use for investigating and applying the public trust doctrine to implement State management programs approved under section 306 [16 USC § 1455].

(3) On December 1, of each year, the Secretary shall transmit to the Congress an annual report on the Fund, including the balance of the Fund and an itemization of all deposits into and disbursements from the Fund in the preceding fiscal year.

C. Outcome Indicators

The success of the Coastal Zone Management Act can and should be assessed with measurable outcomes. The establishment of outcome indicators for the program should be developed in consultation with and participation of State representatives, and should be flexible enough to address the variations among state programs.

Draft Proposed Language:

Sec. __ (a) Not later than 24 months after the enactment of this Act, the Secretary of Commerce shall submit a report to the Committee on Resources of the House of representatives that contains recommendations for a common set of measurable outcome indicators that would provide a mechanism to evaluate the effectiveness of State coastal zone management programs and activities in achieving one or more of the objectives set out in Section 303(2)(A)-(J) of the Coastal Zone Management Act of 1972. In preparing the report, the Secretary shall include participation of representatives of the Governors of the coastal states. Prior to submitting the report the Governors shall be provided an opportunity to comment on the report and their comments shall be included in the final report.

(b) Not later than 48 months after the enactment of this Act, the Secretary of Commerce shall submit to the House Resources Committee recommendations for such legislation, regulation or guidance necessary to implement a national coastal zone management outcome monitoring and performance evaluation system.

National Estuarine Research Reserve Association

Statement for the Subcommittee on Fisheries Conservation, Wildlife and Oceans

**Submitted by Gary D. Lytton, President
National Estuarine Research Reserve Association
February 25, 1999**

Mr. Chairman, I am Gary Lytton, President of the National Estuarine Research Reserve Association (NERRA), and Director of the Rookery Bay National Estuarine Research Reserve in Naples, Florida. I am an employee of the Florida Department of Environmental Protection, with 20 years of experience in coastal and estuarine management in Southwest Florida. My testimony is presented to you on behalf of NERRA, a national non-profit organization representing the interests of managers and staff from the 23 designated and four proposed sites in the National Estuarine Research Reserve System (NERRS). On behalf of NERRA, I would like to thank you for the opportunity to share with you our recommendations for the reauthorization of the Coastal Zone Management Act (CZMA).

CZMA Reauthorization: Informed Coastal Communities

One of the most significant challenges in managing the nation's coasts today is the increasingly important need to link relevant science-based information to local coastal communities. Decisions made at the local and regional level have long-term, profound consequences for both the coastal environment and the economy. The CZMA provides an important framework for integrating and improving decision-making at the federal, state, and local level.

Reauthorization of the Act provides an opportunity to enhance the ability of coastal communities to effectively address issues of growth management, sustained economic development, and coastal protection and restoration. Amendments to the Act should:

- (1) Provide for effective regional forums to assess the technology and information needs of coastal communities at the local and regional level.
- (2) Strengthen the capacity of the federal/state partnership to support science and monitoring relevant to local and regional needs.
- (3) Improve the access and delivery of science-based information and technology to coastal communities, and evaluate the performance of the federal/state partnership in supporting informed coastal decisions.

The National Estuarine Research Reserve System (NERRS): Integrating Research, Stewardship, and Education

The NERRS was established under Section 315 of the CZMA, to promote informed coastal decisions through site-based estuarine research and education. NERRS sites are representative of larger biogeographic regions that share similar geophysical and biological characteristics. Coastal states are responsible for management of the Reserve sites, in cooperation with the National Oceanic and Atmospheric Administration (NOAA). Currently there are 23 designated Reserves located along the nation's coasts, including Alaska and Puerto Rico, with four additional sites scheduled for designation within the next year.

Estuaries, coastal bays with freshwater inflows, represent the interface between land use and coastal and ocean resources. Considered among the most biologically productive ecosystems on the planet, healthy estuaries are essential for sustainable and robust coastal communities. Estuaries support vital nurseries for recreational and commercially important fish and shellfish, provide essential habitat for wildlife and opportunities for ecotourism, and serve as ports for trade and commerce. The NERRS and state Coastal Zone Management Programs have contributed to improved regulation and protection of estuarine resources, through integrated research and education programs, and implementation of State Coastal Zone Management Plans.

Local and regional land use decisions continue to contribute to water quality degradation and loss of estuarine wetland habitats. Land use activities within watersheds, ranging from agriculture and development, to water resource allocations and flood control, are becoming increasingly important factors in estuarine management. Local elected officials, land use planners, regulatory agencies, and agriculture interests are often faced with making land use decisions without access to sufficient relevant information regarding the potential consequences for downstream impacts.

To meet these increasing challenges, the NERRS has developed System-wide initiatives to strengthen the Reserve's ability to detect changes in estuaries, address research needs relevant to local and regional issues, and provide technical training to environmental professionals:

- The NERRS System-Wide Monitoring Program is designed to provide standardized monitoring and assessment capabilities to each Reserve, to detect changes in water quality and biological indicators, linked to land use changes within adjacent watersheds.
- The NERRS Graduate Research Fellowship Program supports two graduate research projects at each Reserve annually, to address coastal management issues relevant to local and regional issues. Research topics range from stormwater management and restoration ecology, to invasive exotic plants and fisheries habitat requirements.
- The NERRS Coastal Decision-Makers Workshops are conducted at each Reserve, targeting local environmental professionals involved in planning, regulation, and management. Workshops provide science-based information on topics relevant to local issues on non-point discharges, watershed management, restoration science, etc.

In addition to research, monitoring, education and technical training, Reserves are developing effective resource stewardship and coastal restoration programs that address

both site-specific and watershed-scale needs. Resource stewardship is an essential component of the NERRS mission, to ensure that site conditions remain suitable for research and education programs. Stewardship activities include active programs in eradicating invasive exotic species, restoring natural hydroperiods, and conducting prescribed fires in fire-dependent plant communities. NERRS site staff have developed successful partnerships with local agencies, organizations, and landowners to assist with watershed management strategies, and developing Best Management Practices designed to minimize impacts to estuarine waters.

There is an increasingly important role for the NERRS in supporting restoration science within estuarine and watershed ecosystems. A number of Reserves have been actively engaged in conducting restoration projects ranging from eradication of invasive plants to restoring wetlands and freshwater hydroperiods. With the research and monitoring capabilities of the NERRS, the Reserves are well positioned to contribute to the science of restoration ecology. Effective restoration science can improve future project design, providing for greater probability of success, and cost benefits. The long-term monitoring capabilities of the NERRS sites can also support efforts to observe potential recovery of wetland ecosystem function over time.

NERRA Recommendations for CZMA Reauthorization

NERRA offers the five following recommendations for consideration by the Committee:

(1) Proposed revisions to Section 315

NERRA supports the draft revisions to Section 315 proposed by the Administration; specifically the addition of the following language:

(a) Establishment of the System. There is established the National Estuarine Research Reserve System (hereinafter referred to as the "System") that is a protected areas network of Federal, State, and community partnerships which promotes informed management of the Nation's estuarine and coastal areas through interconnected programs in resource stewardship, education and training, and scientific understanding-

(C) designation of the area as a reserve will serve to enhance public awareness and understanding of estuarine areas, and provide suitable opportunities for education, interpretation, training and demonstration projects; and

Similarly, NERRA supports the proposed addition of education and resource stewardship to appropriate subsections (c)1-5; (d)1-2; (e).

(5) In developing the guidelines for this section, the Secretary shall consult with external professionals associated with estuarine issues.

(d)(1) requiring that the Secretary, in conducting or supporting activities relating to estuaries, give reasonable priority to research, education, and resource stewardship activities that use the System; and

(e)(B)(i) to any coastal state or public or private person for purposes of: (i) supporting research and monitoring associated with a national estuarine reserve that are consistent with the research guidelines developed under subsection (c) or (ii) conducting educational, interpretive, or training activities for a national estuarine reserve that are consistent with the education guidelines developed under subsection (c).

(3)(A)...and interests therein. Non-Federal costs associated with the purchase of any lands and waters, or interests therein, which are incorporated into the boundaries of a reserve up to five years after the costs are incurred, may be used to match the Federal share.

(4)(A) The Secretary may enter into cooperative agreements, financial agreements, grants, contracts, or other agreements with any nonprofit organization, authorizing the organization to solicit donations to carry out the purposes and policies of this section, other than general administration of reserves or the System and which are consistent with the purposes and policies of this section, and

(B) accept donations of funds and services for use in carrying out the purposes and policies of this section, other than general administration of reserves or the System and which are consistent with the the purposes and policies of this section. Donations accepted under this section shall be considered as a gift or bequest to or for the use of the United States for the purpose carrying out this section.

(f)(1) The Secretary shall periodically evaluate the operation and management of each national estuarine reserve, including coordination with other coastal programs, including...

(2) Proposed addition of Construction Funds to Section 315

NERRA supports the addition of a subsection to Section 315 that provides for annual construction and acquisition funds to meet the needs of NERRS sites for completing priority facility infrastructure including research, training and education, visitor center, offices, trails and boardwalks, and related projects. The NERRS has recently completed a Facilities Plan that identifies priority needs for designated Reserve sites. Project selection would be based on a priority list developed jointly by NERRS sites in partnership with the Secretary.

(3) Increased Support for the NERRS : Section 318 Authorization of appropriations.

The NERRS has managed to build an effective framework to support estuarine research, education and training, and resource stewardship at the 23 sites despite inadequate federal funding over the past ten years. With three additional sites entering the System this year, the federal operations budget (315) for the NERRS was reduced by \$1.35 million to \$4.3

million, representing a 20% decrease in fiscal year 1999. NERRA has serious concerns about the ability of the NERRS to meet the increasing needs of coastal communities without a significant increase in federal operations support. An independent panel, appointed by NOAA in 1993 to review the NERRS, strongly recommended a minimum federal funding level of \$10 million for 22 reserves.

NERRA has identified \$12 million to meet the operational needs of 25 reserves in fiscal year 2000. This budget includes support for technical training workshops, the NERRS Graduate Research Fellowships, the System-Wide Monitoring Program, and essential core operations support for each reserve.

NERRA recommends the following authorization levels for 315 (Operations):

- (A) \$12,000,000 for fiscal year 2000;
- (B) \$14,000,000 for fiscal year 2001; and
- (C) \$16,000,000 for fiscal year 2002; and
- (D) \$18,000,000 for fiscal year 2003; and
- (E) \$20,000,000 for fiscal year 2004.

In addition, NERRA recommends the following authorization levels for proposed 315(Construction):

- (A) \$12,000,000 for fiscal year 2000;
- (B) \$15,000,000 for fiscal year 2001; and
- (C) \$18,000,000 for fiscal year 2002; and
- (D) \$18,000,000 for fiscal year 2003; and
- (E) \$18,000,000 for fiscal year 2004.

NERRA supports the authorization levels proposed by the Coastal States Organization for Sections 306 and 309; 310; and 306A.

NERRA supports costs associated with administration of this title, \$5,500,000, for fiscal year 2000; and such sums as are necessary for fiscal years 2001 - 2004.

(4) NERRS Coastal Institutes Initiative

To meet the increasing needs of coastal communities for science-based information relevant to local and regional issues, the NERRS is advancing a concept for developing Coastal Training Institutes at selected Reserves. Coastal Institutes would strengthen the capacity of Reserves to deliver quality technical training services to an expanded target audience of professionals and university/college students within the Reserve's biogeographic region. An Institute would serve as a regional and local forum to assess the technology and information needs of the coastal management community, and provide for dissemination of services and products from State Coastal Zone Management Programs, and relevant NOAA programs. Not envisioned as a new facility, the Coastal Institute would be housed within a Reserve's existing facility, and function as a vehicle for creating local and regional partnerships that enhance the NERRS mission of informed management.

Potential training topics offered through a Reserve's Coastal Institute could include:

- Coastal Wetlands Restoration
- Developing Sustainable Ecotourism
- Developing and Evaluating Best Management Practices for Agriculture
- Using Geographic Information Systems (GIS) as tools for Watershed Management
- Coastal Hazards Mitigation

(5) Measurable Objectives for the CZMA

NERRA supports the concept of establishing relevant outcome indicators for assessing the effectiveness of the CZMA in meeting goals and objectives. The establishment of national objectives should be developed in direct consultation with state coastal management programs and the NERRS.

On behalf of the membership of the Association, I want to thank you for providing me with the opportunity to submit comments to you regarding the reauthorization of the Act. I would be pleased to answer any questions regarding my comments.

